Thomas R Clandinin

List of Publications by Year
in descending order

68 papers	4,114 citations	117453 34 h-index	138251 58 g-index
80 all docs	80 docs citations	80 times ranked	3121 citing authors

#	Article	IF	Citations
1	N-Cadherin Regulates Target Specificity in the Drosophila Visual System. Neuron, 2001, 30, 437-450.	3.8	255
2	Subcellular Imaging of Voltage and Calcium Signals Reveals Neural Processing InÂVivo. Cell, 2016, 166, 245-257.	13.5	228
3	Processing properties of ON and OFF pathways for Drosophila motion detection. Nature, 2014, 512, 427-430.	13.7	220
4	Defining the Computational Structure of the Motion Detector in Drosophila. Neuron, 2011, 70, 1165-1177.	3.8	217
5	A versatile in vivo system for directed dissection of gene expression patterns. Nature Methods, 2011, 8, 231-237.	9.0	193
6	Making Connections in the Fly Visual System. Neuron, 2002, 35, 827-841.	3.8	162
7	Fast two-photon imaging of subcellular voltage dynamics in neuronal tissue with genetically encoded indicators. ELife, 2017, 6, .	2.8	161
8	The protocadherin Flamingo is required for axon target selection in the Drosophila visual system. Nature Neuroscience, 2003, 6, 557-563.	7.1	153
9	Drosophila LAR Regulates R1-R6 and R7 Target Specificity in the Visual System. Neuron, 2001, 32, 237-248.	3.8	143
10	Loom-Sensitive Neurons Link Computation to Action in the Drosophila Visual System. Current Biology, 2012, 22, 353-362.	1.8	132
11	Modular Use of Peripheral Input Channels Tunes Motion-Detecting Circuitry. Neuron, 2013, 79, 111-127.	3.8	123
12	Drosophila N-cadherin mediates an attractive interaction between photoreceptor axons and their targets. Nature Neuroscience, 2005, 8, 443-450.	7.1	112
13	Genetic Dissection Reveals Two Separate Retinal Substrates for Polarization Vision in Drosophila. Current Biology, 2012, 22, 12-20.	1.8	108
14	Motion Processing Streams in Drosophila Are Behaviorally Specialized. Neuron, 2008, 59, 322-335.	3.8	100
15	Afferent Growth Cone Interactions Control Synaptic Specificity in the Drosophila Visual System. Neuron, 2000, 28, 427-436.	3.8	96
16	Activity-Independent Prespecification of Synaptic Partners in the Visual Map of Drosophila. Current Biology, 2006, 16, 1835-1843.	1.8	96
17	Orientation Selectivity Sharpens Motion Detection in Drosophila. Neuron, 2015, 88, 390-402.	3.8	94
18	Whole-Brain Calcium Imaging Reveals an Intrinsic Functional Network in Drosophila. Current Biology, 2017, 27, 2389-2396.e4.	1.8	89

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19	Flies and humans share a motion estimation strategy that exploits natural scene statistics. Nature Neuroscience, 2014, 17, 296-303.	7.1	86
20	Motion-Detecting Circuits in Flies: Coming into View. Annual Review of Neuroscience, 2014, 37, 307-327.	5.0	81
21	The Cadherin Flamingo Mediates Level-Dependent Interactions that Guide Photoreceptor Target Choice in Drosophila. Neuron, 2008, 58, 26-33.	3.8	80
22	Direction Selectivity in Drosophila Emerges from Preferred-Direction Enhancement and Null-Direction Suppression. Journal of Neuroscience, 2016, 36, 8078-8092.	1.7	76
23	GABAergic Lateral Interactions Tune the Early Stages of Visual Processing in Drosophila. Neuron, 2013, 78, 1075-1089.	3.8	69
24	A Class of Visual Neurons with Wide-Field Properties Is Required for Local Motion Detection. Current Biology, 2015, 25, 3178-3189.	1.8	62
25	Liprin-Â is required for photoreceptor target selection in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11601-11606.	3.3	59
26	A Network of Cadherin-Mediated Interactions Polarizes Growth Cones to Determine Targeting Specificity. Cell, 2013, 154, 351-364.	13.5	59
27	Coupling of activity, metabolism and behaviour across the Drosophila brain. Nature, 2021, 593, 244-248.	13.7	59
28	Hedgehog signaling regulates gene expression in planarian glia. ELife, 2016, 5, .	2.8	58
29	FlpStop, a tool for conditional gene control in Drosophila. ELife, 2017, 6, .	2.8	50
30	Elementary Motion Detection in<i>Drosophila</i>: Algorithms and Mechanisms. Annual Review of Vision Science, 2018, 4, 143-163.	2.3	49
31	From The Cover: An isoform-specific allele of Drosophila N-cadherin disrupts a late step of R7 targeting. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12944-12949.	3.3	47
32	Differential Adhesion Determines the Organization of Synaptic Fascicles in the Drosophila Visual System. Current Biology, 2014, 24, 1304-1313.	1.8	47
33	Making a visual map: mechanisms and molecules. Current Opinion in Neurobiology, 2009, 19, 174-180.	2.0	44
34	Identifying Functional Connections of the Inner Photoreceptors in Drosophila using Tango-Trace. Neuron, 2014, 83, 630-644.	3.8	42
35	Complex interactions amongst N-cadherin, DLAR, and Liprin-Î± regulate Drosophila photoreceptor axon targeting. Developmental Biology, 2009, 336, 10-19.	0.9	39
36	SPARC enables genetic manipulation of precise proportions of cells. Nature Neuroscience, 2020, 23, 1168-1175.	7.1	39

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37	The mechanisms and molecules that connect photoreceptor axons to their targets in Drosophila. Seminars in Cell and Developmental Biology, 2006, 17, 42-49.	2.3	38
38	Linear Summation Underlies Direction Selectivity in Drosophila. Neuron, 2018, 99, 680-688.e4.	3.8	35
39	Symmetries in stimulus statistics shape the form of visual motion estimators. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12909-12914.	3.3	33
40	The Influence of Wiring Economy on Nervous SystemÂEvolution. Current Biology, 2016, 26, R1101-R1108.	1.8	33
41	Dynamic structure of locomotor behavior in walking fruit flies. ELife, 2017, 6, .	2.8	33
42	Thinking about Visual Behavior; Learning about Photoreceptor Function. Current Topics in Developmental Biology, 2005, 69, 187-213.	1.0	23
43	Transcriptional Feedback Links Lipid Synthesis to Synaptic Vesicle Pools in Drosophila Photoreceptors. Neuron, 2019, 101, 721-737.e4.	3.8	20
44	Differences in Neural Circuitry Guiding Behavioral Responses to Polarized light Presented to Either the Dorsal or Ventral Retina inDrosophila. Journal of Neurogenetics, 2014, 28, 348-360.	0.6	16
45	Sequential Nonlinear Filtering of Local Motion Cues by Global Motion Circuits. Neuron, 2018, 100, 229-243.e3.	3.8	16
46	The connectome predicts resting-state functional connectivity across the Drosophila brain. Current Biology, 2021, 31, 2386-2394.e3.	1.8	16
47	Walking Drosophila align with the e-vector of linearly polarized light through directed modulation of angular acceleration. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2014, 200, 603-614.	0.7	14
48	Mechanosensory input during circuit formation shapes Drosophila motor behavior through patterned spontaneous network activity. Current Biology, 2021, 31, 5341-5349.e4.	1.8	14
49	Hedgehog and Spitz. Cell, 1998, 95, 587-590.	13.5	12
50	The evolutionary trajectory of drosophilid walking. Current Biology, 2022, 32, 3005-3015.e6.	1.8	10
51	The cytoskeletal regulator Genghis khan is required for columnar target specificity in the<i>Drosophila</i>visual system. Development (Cambridge), 2011, 138, 4899-4909.	1.2	9
52	Generation of infectious virus particles from inducible transgenic genomes. Current Biology, 2014, 24, R107-R108.	1.8	8
53	Drosophila Vision: An Eye for Change. Current Biology, 2020, 30, R66-R68.	1.8	4
54	A Drosophila Toolkit for the Visualization and Quantification of Viral Replication Launched from Transgenic Genomes. PLoS ONE, 2014, 9, e112092.	1.1	3

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55	Editorial overview: Microcircuit evolution and computation 2016. Current Opinion in Neurobiology, 2016, 41, 188-190.	2.0	2
56	Glia put visual map in sync. Science, 2017, 357, 867-868.	6.0	2
57	Insect Vision: Remembering the Shape of Things. Current Biology, 2006, 16, R369-R371.	1.8	1
58	Grabbing brain activity on the go. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1965-1967.	3.3	1
59	Vision: EM-erging Motion-Detecting Circuits. Current Biology, 2014, 24, R390-R392.	1.8	0
60	Neurons Rho to Get in Shape for the Day. Cell, 2015, 162, 699-700.	13.5	0
61	Can You Hear Me Now?. Neuron, 2016, 89, 425-427.	3.8	0
62	How Does Familiarity Breed Contempt?. Cell, 2017, 169, 775-776.	13.5	0
63	Combining Anatomy, Measurements and Manipulation of Neuronal Activity to Interrogate Circuit Function in Drosophila. , 2017, , 371-396.		0
64	Drosophila Connectomics: Mapping the Larval Eyeâ€™sÂMind. Current Biology, 2017, 27, R1161-R1163.	1.8	0
65	Ben Barres (1954â€“2017). Neuron, 2018, 97, 1211-1213.	3.8	0
66	Developmental Biology: Neurons That Divide Together Wire Together. Current Biology, 2018, 28, R715-R717.	1.8	0
67	Neuroscience: Convergence of biological and artificial networks. Current Biology, 2021, 31, R1079-R1081.	1.8	0
68	What can fruit flies teach us about karate?. ELife, 2014, 3, e04040.	2.8	0