

Ian A Meinertzhagen

List of Publications by Year in descending order

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112
papers

10,892
citations

43973

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37111

96
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123
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docs citations

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times ranked

8339
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | The Draft Genome of <i>Ciona intestinalis</i> : Insights into Chordate and Vertebrate Origins. <i>Science</i> , 2002, 298, 2157-2167. | 6.0 | 1,539 |
| 2 | A visual motion detection circuit suggested by <i>Drosophila</i> connectomics. <i>Nature</i> , 2013, 500, 175-181. | 13.7 | 631 |
| 3 | A connectome and analysis of the adult <i>Drosophila</i> central brain. <i>ELife</i> , 2020, 9, . | 2.8 | 596 |
| 4 | Axonal Transport of Mitochondria to Synapses Depends on Milton, a Novel <i>Drosophila</i> Protein. <i>Neuron</i> , 2002, 36, 1063-1077. | 3.8 | 567 |
| 5 | Endophilin Mutations Block Clathrin-Mediated Endocytosis but Not Neurotransmitter Release. <i>Cell</i> , 2002, 109, 101-112. | 13.5 | 305 |
| 6 | The Neural Substrate of Spectral Preference in <i>Drosophila</i> . <i>Neuron</i> , 2008, 60, 328-342. | 3.8 | 274 |
| 7 | Synaptic organization of the mushroom body calyx in <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2002, 445, 211-226. | 0.9 | 256 |
| 8 | Synaptic circuits and their variations within different columns in the visual system of <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13711-13716. | 3.3 | 254 |
| 9 | The Extraretinal Eyelet of <i>Drosophila</i> : Development, Ultrastructure, and Putative Circadian Function. <i>Journal of Neuroscience</i> , 2002, 22, 9255-9266. | 1.7 | 233 |
| 10 | Synaptic circuits of the <i>Drosophila</i> optic lobe: The input terminals to the medulla. <i>Journal of Comparative Neurology</i> , 2008, 509, 493-513. | 0.9 | 195 |
| 11 | The CNS connectome of a tadpole larva of <i>Ciona intestinalis</i> (L.) highlights sidedness in the brain of a chordate sibling. <i>ELife</i> , 2016, 5, . | 2.8 | 192 |
| 12 | The functional organisation of glia in the adult brain of <i>Drosophila</i> and other insects. <i>Progress in Neurobiology</i> , 2010, 90, 471-497. | 2.8 | 191 |
| 13 | <i>Drosophila</i> VAP-33A Directs Bouton Formation at Neuromuscular Junctions in a Dosage-Dependent Manner. <i>Neuron</i> , 2002, 35, 291-306. | 3.8 | 181 |
| 14 | Wiring Economy and Volume Exclusion Determine Neuronal Placement in the <i>Drosophila</i> Brain. <i>Current Biology</i> , 2011, 21, 2000-2005. | 1.8 | 179 |
| 15 | A Slowed Classical Pathway Rather Than Kiss-and-Run Mediates Endocytosis at Synapses Lacking Synaptojanin and Endophilin. <i>Cell</i> , 2005, 123, 521-533. | 13.5 | 176 |
| 16 | <i>Drosophila tan</i> Encodes a Novel Hydrolase Required in Pigmentation and Vision. <i>PLoS Genetics</i> , 2005, 1, e63. | 1.5 | 173 |
| 17 | The comprehensive connectome of a neural substrate for ON^{TM} motion detection in <i>Drosophila</i> . <i>ELife</i> , 2017, 6, . | 2.8 | 166 |
| 18 | Altered Synaptic Development and Active Zone Spacing in Endocytosis Mutants. <i>Current Biology</i> , 2006, 16, 591-598. | 1.8 | 160 |

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|----|---|------|-----------|
| 19 | The larval ascidian nervous system: the chordate brain from its small beginnings. Trends in Neurosciences, 2001, 24, 401-410. | 4.2 | 157 |
| 20 | The protocadherin Flamingo is required for axon target selection in the Drosophila visual system. Nature Neuroscience, 2003, 6, 557-563. | 7.1 | 153 |
| 21 | Experience-Dependent Developmental Plasticity in the Optic Lobe of <i>Drosophila melanogaster</i> . Journal of Neuroscience, 1997, 17, 1493-1504. | 1.7 | 140 |
| 22 | Development and structure of synaptic contacts in Drosophila. Seminars in Cell and Developmental Biology, 2006, 17, 20-30. | 2.3 | 135 |
| 23 | Migratory neuronal progenitors arise from the neural plate borders in tunicates. Nature, 2015, 527, 371-374. | 13.7 | 133 |
| 24 | The central nervous system of the ascidian larva: mitotic history of cells forming the neural tube in late embryonic <i>Ciona intestinalis</i> . Developmental Biology, 2004, 271, 239-262. | 0.9 | 130 |
| 25 | <i>tan</i> and <i>ebony</i> Genes Regulate a Novel Pathway for Transmitter Metabolism at Fly Photoreceptor Terminals. Journal of Neuroscience, 2002, 22, 10549-10557. | 1.7 | 121 |
| 26 | Candidate Neural Substrates for Off-Edge Motion Detection in Drosophila. Current Biology, 2014, 24, 1062-1070. | 1.8 | 111 |
| 27 | Comparisons between the ON- and OFF-edge motion pathways in the Drosophila brain. ELife, 2019, 8, . | 2.8 | 111 |
| 28 | Glutamate, GABA and Acetylcholine Signaling Components in the Lamina of the Drosophila Visual System. PLoS ONE, 2008, 3, e2110. | 1.1 | 107 |
| 29 | A genomewide survey of developmentally relevant genes in <i>Ciona intestinalis</i> . Development Genes and Evolution, 2003, 213, 303-313. | 0.4 | 99 |
| 30 | Cholinergic Circuits Integrate Neighboring Visual Signals in a Drosophila Motion Detection Pathway. Current Biology, 2011, 21, 2077-2084. | 1.8 | 98 |
| 31 | THE NEUROBIOLOGY OF THE ASCIDIAN TADPOLE LARVA: Recent Developments in an Ancient Chordate. Annual Review of Neuroscience, 2004, 27, 453-485. | 5.0 | 97 |
| 32 | Activity-Independent Prespecification of Synaptic Partners in the Visual Map of Drosophila. Current Biology, 2006, 16, 1835-1843. | 1.8 | 96 |
| 33 | Synaptic organization in the adult <i>Drosophila</i> mushroom body calyx. Journal of Comparative Neurology, 2009, 517, 808-824. | 0.9 | 96 |
| 34 | Age-related plasticity in the synaptic ultrastructure of neurons in the mushroom body calyx of the adult honeybee <i>Apis mellifera</i> . Journal of Comparative Neurology, 2012, 520, 3509-3527. | 0.9 | 93 |
| 35 | Comprehensive analysis of the ascidian genome reveals novel insights into the molecular evolution of ion channel genes. Physiological Genomics, 2005, 22, 269-282. | 1.0 | 91 |
| 36 | Neurons of the ascidian larval nervous system in <i>Ciona intestinalis</i> : II. Peripheral nervous system. Journal of Comparative Neurology, 2007, 501, 335-352. | 0.9 | 89 |

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|----|---|-----|-----------|
| 37 | Endophilin Promotes a Late Step in Endocytosis at Glial Invaginations in <i>Drosophila</i> Photoreceptor Terminals. <i>Journal of Neuroscience</i> , 2003, 23, 10732-10744. | 1.7 | 86 |
| 38 | Neurons of the ascidian larval nervous system in <i>Ciona intestinalis</i> : I. Central nervous system. <i>Journal of Comparative Neurology</i> , 2007, 501, 316-334. | 0.9 | 86 |
| 39 | Ebony protein in the <i>Drosophila</i> nervous system: Optic neuropile expression in glial cells. <i>Journal of Comparative Neurology</i> , 2002, 452, 93-102. | 0.9 | 85 |
| 40 | Different classes of input and output neurons reveal new features in microglomeruli of the adult <i>Drosophila</i> mushroom body calyx. <i>Journal of Comparative Neurology</i> , 2012, 520, 2185-2201. | 0.9 | 84 |
| 41 | Basigin (EMMPRIN/CD147) interacts with integrin to affect cellular architecture. <i>Journal of Cell Science</i> , 2005, 118, 2649-2660. | 1.2 | 83 |
| 42 | Mitochondria are redistributed in <i>Drosophila</i> photoreceptors lacking Milton, a kinesin-associated protein. <i>Journal of Comparative Neurology</i> , 2003, 463, 372-388. | 0.9 | 70 |
| 43 | Organization and metamorphosis of glia in the <i>Drosophila</i> visual system. <i>Journal of Comparative Neurology</i> , 2012, 520, 2067-2085. | 0.9 | 70 |
| 44 | The dynamics of signaling at the histaminergic photoreceptor synapse of arthropods. <i>Progress in Neurobiology</i> , 2007, 82, 202-227. | 2.8 | 69 |
| 45 | <i>Drosophila</i> Dscam Proteins Regulate Postsynaptic Specificity at Multiple-Contact Synapses. <i>Neuron</i> , 2010, 67, 761-768. | 3.8 | 67 |
| 46 | Charcot-Marie-Tooth 2B mutations in rab7 cause dosage-dependent neurodegeneration due to partial loss of function. <i>ELife</i> , 2013, 2, e01064. | 2.8 | 62 |
| 47 | The peripheral nervous system of the ascidian tadpole larva: Types of neurons and their synaptic networks. <i>Journal of Comparative Neurology</i> , 2018, 526, 583-608. | 0.9 | 59 |
| 48 | Transcriptional Orchestration of the Regulated Secretory Pathway in Neurons by the bHLH protein DIMM. <i>Current Biology</i> , 2010, 20, 9-18. | 1.8 | 58 |
| 49 | The <i>white</i> Gene of <i>Drosophila melanogaster</i> Encodes a Protein with a Role in Courtship Behavior. <i>Journal of Neurogenetics</i> , 2008, 22, 243-276. | 0.6 | 57 |
| 50 | Synaptic connections of PDF-immunoreactive lateral neurons projecting to the dorsal protocerebrum of <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2010, 518, 292-304. | 0.9 | 53 |
| 51 | Immunocytochemical localization of synaptic proteins to photoreceptor synapses of <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2010, 518, 1133-1155. | 0.9 | 51 |
| 52 | Mapping chromatic pathways in the <i>Drosophila</i> visual system. <i>Journal of Comparative Neurology</i> , 2016, 524, 213-227. | 0.9 | 51 |
| 53 | Control of Synaptic Specificity by Establishing a Relative Preference for Synaptic Partners. <i>Neuron</i> , 2019, 103, 865-877.e7. | 3.8 | 50 |
| 54 | A Glial Variant of the Vesicular Monoamine Transporter Is Required To Store Histamine in the <i>Drosophila</i> Visual System. <i>PLoS Genetics</i> , 2008, 4, e1000245. | 1.5 | 49 |

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|----|---|-----|-----------|
| 55 | Of what use is connectomics? A personal perspective on the <i>Drosophila</i> connectome. <i>Journal of Experimental Biology</i> , 2018, 221, . | 0.8 | 49 |
| 56 | Differential Adhesion Determines the Organization of Synaptic Fascicles in the <i>Drosophila</i> Visual System. <i>Current Biology</i> , 2014, 24, 1304-1313. | 1.8 | 47 |
| 57 | Synaptic connections of cholinergic antennal lobe relay neurons innervating the lateral horn neuropile in the brain of <i>Drosophila melanogaster</i> . <i>Journal of Comparative Neurology</i> , 2003, 466, 299-315. | 0.9 | 46 |
| 58 | Cyclical expression of Na ⁺ /K ⁺ -ATPase in the visual system of <i>Drosophila melanogaster</i> . <i>Journal of Insect Physiology</i> , 2009, 55, 459-468. | 0.9 | 46 |
| 59 | Peripheral Synapses at Identified Mechanosensory Neurons in Spiders: Three-Dimensional Reconstruction and GABA Immunocytochemistry. <i>Journal of Neuroscience</i> , 1999, 19, 298-310. | 1.7 | 43 |
| 60 | Circuit Homology between Decussating Pathways in the <i>Ciona</i> Larval CNS and the Vertebrate Startle-Response Pathway. <i>Current Biology</i> , 2017, 27, 721-728. | 1.8 | 43 |
| 61 | Neurotransmitter regulation of circadian structural changes in the fly's visual system. , 1999, 45, 96-105. | | 42 |
| 62 | A resource for the <i>Drosophila</i> antennal lobe provided by the connectome of glomerulus VA1v. <i>ELife</i> , 2018, 7, . | 2.8 | 42 |
| 63 | The synaptic vesicle SNARE neuronal Synaptobrevin promotes endolysosomal degradation and prevents neurodegeneration. <i>Journal of Cell Biology</i> , 2012, 196, 261-276. | 2.3 | 40 |
| 64 | High-Probability Neurotransmitter Release Sites Represent an Energy-Efficient Design. <i>Current Biology</i> , 2016, 26, 2562-2571. | 1.8 | 40 |
| 65 | The Fly Brain Atlas. <i>Annual Review of Cell and Developmental Biology</i> , 2019, 35, 637-653. | 4.0 | 38 |
| 66 | Importin- β 11 Regulates Synaptic Phosphorylated Mothers Against Decapentaplegic, and Thereby Influences Synaptic Development and Function at the <i>Drosophila</i> Neuromuscular Junction. <i>Journal of Neuroscience</i> , 2010, 30, 5253-5268. | 1.7 | 36 |
| 67 | The Genetic Analysis of Functional Connectomics in <i>Drosophila</i> . <i>Advances in Genetics</i> , 2012, 80, 99-151. | 0.8 | 36 |
| 68 | Brain plasticity in Diptera and Hymenoptera. <i>Frontiers in Bioscience - Scholar</i> , 2010, S2, 268-288. | 0.8 | 36 |
| 69 | The metabolism of histamine in the <i>Drosophila</i> optic lobe involves an ommatidial pathway: β -alanine recycles through the retina. <i>Journal of Experimental Biology</i> , 2012, 215, 1399-1411. | 0.8 | 35 |
| 70 | Histamine Recycling Is Mediated by CarT, a Carcinine Transporter in <i>Drosophila</i> Photoreceptors. <i>PLoS Genetics</i> , 2015, 11, e1005764. | 1.5 | 35 |
| 71 | Overexpressing Temperature-Sensitive Dynamin Decelerates Phototransduction and Bundles Microtubules in <i>Drosophila</i> Photoreceptors. <i>Journal of Neuroscience</i> , 2009, 29, 14199-14210. | 1.7 | 34 |
| 72 | From Form to Function: the Ways to Know a Neuron. <i>Journal of Neurogenetics</i> , 2009, 23, 68-77. | 0.6 | 34 |

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|----|---|-----|-----------|
| 73 | Morphological and functional effects of altered cysteine string protein at the <i>Drosophila</i> larval neuromuscular junction. <i>Synapse</i> , 2007, 61, 1-16. | 0.6 | 33 |
| 74 | Visualization of synaptic markers in the optic neuropils of <i>Drosophila</i> using a new constrained deconvolution method. <i>Journal of Comparative Neurology</i> , 2001, 429, 277-288. | 0.9 | 32 |
| 75 | Neuronal identity: the neuron types of a simple chordate sibling, the tadpole larva of <i>Ciona intestinalis</i> . <i>Current Opinion in Neurobiology</i> , 2019, 56, 47-60. | 2.0 | 29 |
| 76 | Neuronal circuits integrating visual motion information in <i>Drosophila melanogaster</i> . <i>Current Biology</i> , 2022, 32, 3529-3544.e2. | 1.8 | 29 |
| 77 | Photoreceptor Neurons Find New Synaptic Targets When Misdirected by Overexpressing <i>runt</i> in <i>Drosophila</i> . <i>Journal of Neuroscience</i> , 2009, 29, 828-841. | 1.7 | 27 |
| 78 | Organization of efferent peripheral synapses at mechanosensory neurons in spiders. , 2000, 420, 195-210. | | 24 |
| 79 | The organisation of invertebrate brains: cells, synapses and circuits. <i>Acta Zoologica</i> , 2010, 91, 64-71. | 0.6 | 24 |
| 80 | An endocrine disruptor, bisphenol A, affects development in the protochordate <i>Ciona intestinalis</i> : Hatching rates and swimming behavior alter in a dose-dependent manner. <i>Environmental Pollution</i> , 2013, 173, 257-263. | 3.7 | 23 |
| 81 | <i>Drosophila</i> Sidekick is required in developing photoreceptors to enable visual motion detection. <i>Development (Cambridge)</i> , 2018, 145, . | 1.2 | 22 |
| 82 | Basigin/EMMPRIN/CD147 mediates neuron-glia interactions in the optic lamina of <i>Drosophila</i> . <i>Glia</i> , 2007, 55, 1542-1553. | 2.5 | 21 |
| 83 | A common evolutionary origin for the ON- and OFF-edge motion detection pathways of the <i>Drosophila</i> visual system. <i>Frontiers in Neural Circuits</i> , 2015, 9, 33. | 1.4 | 21 |
| 84 | Neuronal Glutamatergic Synaptic Clefts Alkalinize Rather Than Acidify during Neurotransmission. <i>Journal of Neuroscience</i> , 2020, 40, 1611-1624. | 1.7 | 21 |
| 85 | Central projections of photoreceptor axons originating from ectopic eyes in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 8968-8973. | 3.3 | 20 |
| 86 | Transcriptional Feedback Links Lipid Synthesis to Synaptic Vesicle Pools in <i>Drosophila</i> Photoreceptors. <i>Neuron</i> , 2019, 101, 721-737.e4. | 3.8 | 20 |
| 87 | The Organization of the Second Optic Chiasm of the <i>Drosophila</i> Optic Lobe. <i>Frontiers in Neural Circuits</i> , 2019, 13, 65. | 1.4 | 19 |
| 88 | Connectome studies on <i>Drosophila</i> : a short perspective on a tiny brain. <i>Journal of Neurogenetics</i> , 2016, 30, 62-68. | 0.6 | 18 |
| 89 | Presynaptic Mitochondrial Volume and Packing Density Scale with Presynaptic Power Demand. <i>Journal of Neuroscience</i> , 2022, 42, 954-967. | 1.7 | 18 |
| 90 | A Rapid Method for Combined Laser Scanning Confocal Microscopic and Electron Microscopic Visualization of Biocytin or Neurobiotin-labeled Neurons. <i>Journal of Histochemistry and Cytochemistry</i> , 1998, 46, 263-273. | 1.3 | 12 |

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|-----|--|-----|-----------|
| 91 | The irre Cell Recognition Module (IRM) Protein Kirre Is Required to Form the Reciprocal Synaptic Network of L4 Neurons in the <i>Drosophila</i> Lamina. <i>Journal of Neurogenetics</i> , 2014, 28, 291-301. | 0.6 | 12 |
| 92 | Co-localization of Gamma-Aminobutyric Acid and Glutamate in Neurons of the Spider Central Nervous System. <i>Cell and Tissue Research</i> , 2015, 362, 461-479. | 1.5 | 12 |
| 93 | Three-dimensional ultrastructural organization of the ommatidium of the minute parasitoid wasp <i>Trichogramma evanescens</i> . <i>Arthropod Structure and Development</i> , 2019, 48, 35-48. | 0.8 | 12 |
| 94 | A connectome is not enough – what is still needed to understand the brain of <i>Drosophila</i> ?. <i>Journal of Experimental Biology</i> , 2021, 224, . | 0.8 | 12 |
| 95 | From two to three dimensions: The importance of the third dimension for evaluating the limits to neuronal miniaturization in insects. <i>Journal of Comparative Neurology</i> , 2018, 526, 653-662. | 0.9 | 11 |
| 96 | Eutely, cell lineage, and fate within the ascidian larval nervous system: determinacy or to be determined?. <i>Canadian Journal of Zoology</i> , 2005, 83, 184-195. | 0.4 | 9 |
| 97 | <i>Drosophila tan</i> encodes a novel hydrolase required in pigmentation and vision. <i>PLoS Genetics</i> , 2005, preprint, e63. | 1.5 | 9 |
| 98 | Morphology of Invertebrate Neurons and Synapses. , 0, , 247-284. | | 7 |
| 99 | Biologically inspired EM image alignment and neural reconstruction. <i>Bioinformatics</i> , 2011, 27, 2216-2223. | 1.8 | 6 |
| 100 | Tailbud Embryogenesis and the Development of the Neurohypophysis in the Ascidian <i>Ciona intestinalis</i> . , 2001, , 137-141. | | 5 |
| 101 | Organization and metamorphosis of glia in the <i>Drosophila</i> visual system. <i>Journal of Comparative Neurology</i> , 2012, 520, Spc1-Spc1. | 0.9 | 2 |
| 102 | Perspective: A New Era of Comparative Connectomics. , 2017, , 509-518. | | 2 |
| 103 | Control of Synaptic Specificity by Limiting Promiscuous Synapse Formation. <i>SSRN Electronic Journal</i> , 0, , . | 0.4 | 2 |
| 104 | The anatomical organization of the compound eye's visual system. , 0, , 1-19. | | 1 |
| 105 | The world of the identified or digital neuron. <i>Journal of Neurogenetics</i> , 2018, 32, 149-154. | 0.6 | 1 |
| 106 | Ultrastructural 3D reconstruction of the smallest known insect photoreceptors: The stemmata of a first instar larva of Strepsiptera (Hexapoda). <i>Arthropod Structure and Development</i> , 2021, 62, 101055. | 0.8 | 1 |
| 107 | Mapping chromatic pathways in the <i>Drosophila</i> visual system. <i>Journal of Comparative Neurology</i> , 2016, 524, Spc1-Spc1. | 0.9 | 0 |
| 108 | Location and functions of Inebriated in the <i>Drosophila</i> eye. <i>Biology Open</i> , 2018, 7, . | 0.6 | 0 |

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|-----|--|-----|-----------|
| 109 | Novel type of subretinal pigment shield in the miniaturized compound eye of <i>Trichogramma evanescens</i> . <i>Journal of Comparative Neurology</i> , 2020, 528, 167-174. | 0.9 | 0 |
| 110 | <i>Drosophila</i> Connectome. , 2013, , 1-6. | | 0 |
| 111 | Connectome, <i>Drosophila</i> . , 2019, , 1-5. | | 0 |
| 112 | Connectome, <i>Drosophila</i> . , 2022, , 963-967. | | 0 |