# Xiaorong Liu

List of Publications by Year
in descending order

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|---|---|---|---|
| 50<br>papers | 2,749<br>citations | 218677<br>26<br>h-index | 233421<br>45<br>g-index |
| 53<br>all docs | 53<br>docs citations | 53<br>times ranked | 2929<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Development of Precise Maps in Visual Cortex Requires Patterned Spontaneous Activity in the Retina. Neuron, 2005, 48, 797-809. | 8.1 | 263 |
| 2 | Visual Receptive Field Properties of Neurons in the Superficial Superior Colliculus of the Mouse. Journal of Neuroscience, 2010, 30, 16573-16584. | 3.6 | 191 |
| 3 | Mesenchymal stem cell-derived extracellular vesicles and retinal ischemia-reperfusion. Biomaterials, 2019, 197, 146-160. | 11.4 | 182 |
| 4 | Angiopoietin receptor TEK mutations underlie primary congenital glaucoma with variable expressivity. Journal of Clinical Investigation, 2016, 126, 2575-2587. | 8.2 | 175 |
| 5 | A lymphatic defect causes ocular hypertension and glaucoma in mice. Journal of Clinical Investigation, 2014, 124, 4320-4324. | 8.2 | 151 |
| 6 | Orientation-selective Responses in the Mouse Lateral Geniculate Nucleus. Journal of Neuroscience, 2013, 33, 12751-12763. | 3.6 | 120 |
| 7 | Sustained Ocular Hypertension Induces Dendritic Degeneration of Mouse Retinal Ganglion Cells That Depends on Cell Type and Location. , 2013, 54, 1106. | | 111 |
| 8 | Vesicular glutamate transporter 3 expression identifies glutamatergic amacrine cells in the rodent retina. Journal of Comparative Neurology, 2004, 477, 386-398. | 1.6 | 95 |
| 9 | Angiopoietin-1 is required for Schlemmâ€™s canal development in mice and humans. Journal of Clinical Investigation, 2017, 127, 4421-4436. | 8.2 | 94 |
| 10 | Selective Disruption of One Cartesian Axis of Cortical Maps and Receptive Fields by Deficiency inÂEphrin-As and Structured Activity. Neuron, 2008, 57, 511-523. | 8.1 | 81 |
| 11 | Visual Function, Organization, and Development of the Mouse Superior Colliculus. Annual Review of Vision Science, 2018, 4, 239-262. | 4.4 | 81 |
| 12 | Neurons in the Most Superficial Lamina of the Mouse Superior Colliculus Are Highly Selective for Stimulus Direction. Journal of Neuroscience, 2015, 35, 7992-8003. | 3.6 | 80 |
| 13 | Retinal origin of direction selectivity in the superior colliculus. Nature Neuroscience, 2017, 20, 550-558. | 14.8 | 79 |
| 14 | Brain-Derived Neurotrophic Factor and TrkB Modulate Visual Experience-Dependent Refinement of Neuronal Pathways in Retina. Journal of Neuroscience, 2007, 27, 7256-7267. | 3.6 | 77 |
| 15 | Environmental Enrichment Rescues Binocular Matching of Orientation Preference in Mice that Have a Precocious Critical Period. Neuron, 2013, 80, 198-209. | 8.1 | 65 |
| 16 | Progressive Degeneration of Retinal and Superior Collicular Functions in Mice With Sustained Ocular Hypertension. , 2015, 56, 1971. | | 65 |
| 17 | Retinal Ganglion Cell Loss is Delayed Following Optic Nerve Crush in NLRP3 Knockout Mice. Scientific Reports, 2016, 6, 20998. | 3.3 | 59 |
| 18 | Retinal TrkB receptors regulate neural development in the inner, but not outer, retina. Molecular and Cellular Neurosciences, 2008, 38, 431-443. | 2.2 | 53 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Direction-Specific Disruption of Subcortical Visual Behavior and Receptive Fields in Mice Lacking the Î²2 Subunit of Nicotinic Acetylcholine Receptor. Journal of Neuroscience, 2009, 29, 12909-12918. | 3.6 | 50 |
| 20 | Vesicular Glutamate Transporter 1 Is Required for Photoreceptor Synaptic Signaling But Not For Intrinsic Visual Functions. Journal of Neuroscience, 2007, 27, 7245-7255. | 3.6 | 45 |
| 21 | Long-Term Protection of Retinal Ganglion Cells and Visual Function by Brain-Derived Neurotrophic Factor in Mice With Ocular Hypertension. , 2016, 57, 3793. | | 43 |
| 22 | Scotopic Visual Signaling in the Mouse Retina Is Modulated by High-Affinity Plasma Membrane Calcium Extrusion. Journal of Neuroscience, 2006, 26, 7201-7211. | 3.6 | 41 |
| 23 | Overexpression of Brain-Derived Neurotrophic Factor Protects Large Retinal Ganglion Cells After Optic Nerve Crush in Mice. ENeuro, 2017, 4, ENEURO.0331-16.2016. | 1.9 | 41 |
| 24 | Regulation of neonatal development of retinal ganglion cell dendrites by neurotrophinâ€3 overexpression. Journal of Comparative Neurology, 2009, 514, 449-458. | 1.6 | 39 |
| 25 | Different functional susceptibilities of mouse retinal ganglion cell subtypes to optic nerve crush injury. Experimental Eye Research, 2017, 162, 97-103. | 2.6 | 39 |
| 26 | Non-Centered Spike-Triggered Covariance Analysis Reveals Neurotrophin-3 as a Developmental Regulator of Receptive Field Properties of ON-OFF Retinal Ganglion Cells. PLoS Computational Biology, 2010, 6, e1000967. | 3.2 | 38 |
| 27 | Expression of calcium transporters in the retina of the tiger salamander (Ambystoma tigrinum). Journal of Comparative Neurology, 2004, 475, 463-480. | 1.6 | 30 |
| 28 | Subtype-dependent postnatal development of direction- and orientation-selective retinal ganglion cells in mice. Journal of Neurophysiology, 2014, 112, 2092-2101. | 1.8 | 29 |
| 29 | Nano-in-Nano dendrimer gel particles for efficient topical delivery of antiglaucoma drugs into the eye. Chemical Engineering Journal, 2021, 425, 130498. | 12.7 | 27 |
| 30 | Circadian Regulation of nocturnin Transcription by Phosphorylated CREB in Xenopus Retinal Photoreceptor Cells. Molecular and Cellular Biology, 2002, 22, 7501-7511. | 2.3 | 25 |
| 31 | Optical Detection of Early Damage in Retinal Ganglion Cells in a Mouse Model of Partial Optic Nerve Crush Injury. , 2016, 57, 5665. | | 25 |
| 32 | Speckle reduction in visible-light optical coherence tomography using scan modulation. Neurophotonics, 2019, 6, 1. | 3.3 | 24 |
| 33 | Angiopoietin-1 Knockout Mice as a Genetic Model of Open-Angle Glaucoma. Translational Vision Science and Technology, 2020, 9, 16. | 2.2 | 22 |
| 34 | Multimodal photoacoustic ophthalmoscopy in mouse. Journal of Biophotonics, 2013, 6, 505-512. | 2.3 | 21 |
| 35 | Gene dosage manipulation alleviates manifestations of hereditary <i>PAX6</i> haploinsufficiency in mice. Science Translational Medicine, 2020, 12, . | 12.4 | 19 |
| 36 | Detection of Visual Deficits in Aging DBA/2J Mice by Two Behavioral Assays. Current Eye Research, 2011, 36, 481-491. | 1.5 | 18 |

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|---|---|---|---|
| 37 | Genetic disruption of the On visual pathway affects cortical orientation selectivity and contrast sensitivity in mice. Journal of Neurophysiology, 2014, 111, 2276-2286. | 1.8 | 18 |
| 38 | Overexpression of Neurotrophin-3 Stimulates a Second Wave of Dopaminergic Amacrine Cell Genesis after Birth in the Mouse Retina. Journal of Neuroscience, 2011, 31, 12663-12673. | 3.6 | 17 |
| 39 | In Vivo Sublayer Analysis of Human Retinal Inner Plexiform Layer Obtained by Visible-Light Optical Coherence Tomography. , 2022, 63, 18. | | 17 |
| 40 | A Laser-induced Mouse Model of Chronic Ocular Hypertension to Characterize Visual Defects. Journal of Visualized Experiments, 2013, , . | 0.3 | 16 |
| 41 | Visible-Light Optical Coherence Tomography Fibergraphy for Quantitative Imaging of Retinal Ganglion Cell Axon Bundles. Translational Vision Science and Technology, 2020, 9, 11. | 2.2 | 14 |
| 42 | Selective permeability of mouse blood-aqueous barrier as determined by <sup>15</sup> N-heavy isotope tracing and mass spectrometry. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9032-9037. | 7.1 | 13 |
| 43 | Subtype-dependent Morphological and Functional Degeneration of Retinal Ganglion Cells in Mouse Models of Experimental Glaucoma. Journal of Nature and Science, 2015, 1, e103. | 1.1 | 11 |
| 44 | NLRP3 inflammasome in retinal ganglion cell loss in optic neuropathy. Neural Regeneration Research, 2016, 11, 1077. | 3.0 | 9 |
| 45 | Differential effects of experimental glaucoma on intrinsically photosensitive retinal ganglion cells in mice. Journal of Comparative Neurology, 2022, 530, 1494-1506. | 1.6 | 9 |
| 46 | In vivo imaging of the inner retinal layer structure in mice after eye-opening using visible-light optical coherence tomography. Experimental Eye Research, 2021, 211, 108756. | 2.6 | 8 |
| 47 | Global and Regional Damages in Retinal Ganglion Cell Axon Bundles Monitored Non-Invasively by Visible-Light Optical Coherence Tomography Fibergraphy. Journal of Neuroscience, 2021, 41, 10179-10193. | 3.6 | 8 |
| 48 | Long-term retinal protection by MEK inhibition in Pax6 haploinsufficiency mice. Experimental Eye Research, 2022, 218, 109012. | 2.6 | 5 |
| 49 | Correlation between retinal ganglion cell loss and nerve crush force-impulse established with instrumented tweezers in mice. Neurological Research, 2020, 42, 379-386. | 1.3 | 4 |
| 50 | A standardized crush tool to produce consistent retinal ganglion cell damage in mice. Neural Regeneration Research, 2021, 16, 1442. | 3.0 | 1 |