



## Dong Liu

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### Publications

#### PUBLICATIONS

- **Actin depolymerization promotes axon regeneration by restoring axonal mitochondrial transport in mouse models of optic neuropathy.** *Science translational medicine*  
Li, L., Feng, X., Fang, F., Fei, J., Lu, J., Zhang, H., Dujava Žďimalová, M., Yuan, Y., Luo, Z., Huang, H., Liu, D., Huang, F., Liu, et al  
2026; 18 (838): eadw0908
- **Optineurin-facilitated axonal mitochondria delivery promotes neuroprotection and axon regeneration.** *Nature communications*  
Liu, D., Webber, H. C., Bian, F., Xu, Y., Prakash, M., Feng, X., Yang, M., Yang, H., You, I. J., Li, L., Liu, L., Liu, P., Huang, et al  
2025; 16 (1): 1789
- **NeuProIO: A dual-action solid drug nanoparticle topical formulation for simultaneous intraocular pressure reduction and neuroprotection for glaucoma** *CHEMICAL ENGINEERING JOURNAL*  
Xu, L., Li, M., Qi, L., Wang, T., Liu, D., Mani, V., Chuang, H., Yang, Q., Mu, R., Mahdi, S., Huang, D., Shi, H., Hu, et al  
2026; 530
- **NeuProIO: A dual-Action Solid Drug Nanoparticle Topical Formulation for Simultaneous Intraocular Pressure Reduction and Neuroprotection for Glaucoma.** *Chemical engineering journal (Lausanne, Switzerland : 1996)*  
Xu, L., Li, M., Qi, L., Wang, T. C., Liu, D., Mani, V. J., Chuang, H. Y., Yang, Q., Mu, R., Mahdi, S., Huang, D., Shi, H., Hu, et al  
2026; 530
- **GPX4 Promotes Optic Nerve Regeneration and Retinal Ganglion Cell Neuroprotection.** *Molecular therapy : the journal of the American Society of Gene Therapy*  
Yang, M., Bian, F., Feng, X., Li, L., Huang, H., Liu, L., Dalal, R., Yang, H., Jiang, H., Lin, Y., Suraparaju, P. V., Cao, F., Ong, et al  
2026
- **GPX4 Promotes Optic Nerve Regeneration and RGC Neuroprotection.** *bioRxiv : the preprint server for biology*  
Yang, M., Bian, F., Feng, X., Li, L., Huang, H., Liu, L., Dalal, R., Yang, H., Suraparaju, P. V., Cao, F., Ong, P., Luo, A., Liu, et al  
2025
- **The OPTN-H486R Mutation Induces Early Onset of Glaucomatous Neurodegeneration**  
Liu, D., Webber, H., Prakash, M., Feng, X., Huang, H., Lansky, Z., Hu, Y.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Circadian desynchrony in early life leads to enduring autistic-like behavioral changes in adulthood.** *Communications biology*  
Mishra, A., Lin, H., Singla, R., Le, N., Oraebosi, M., Liu, D., Cao, R.  
2024; 7 (1): 1485
- **Anti-lipid peroxidation promotes significant optic nerve regeneration and neuroprotection in mouse glaucoma models**  
Yang, M., Li, L., Feng, X., Huang, H., Liu, L., Liu, D., Bian, F., Dalal, R., Yang, H., Cao, F., Ong, P., Luo, A., Hu, et al  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **A novel function of optineurin in axonal mitochondria transport for axon integrity and regeneration**  
Hu, Y., Liu, D., Webber, H., Bian, F., Prakash, M., Li, L., You, I., Feng, X., Yang, H., Liu, L., Liu, P., Yang, M., Huang, et al

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ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024

- **High-throughput Screening of ATF4/CHOP inhibitors as Neuroprotectants for Glaucoma**  
Liu, D., Chen, W., Yang, H., Liu, L., Schow, S., Lum, R., Hu, Y.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Optineurin-facilitated axonal mitochondria delivery promotes neuroprotection and axon regeneration.** *bioRxiv : the preprint server for biology*  
Liu, D., Webber, H. C., Bian, F., Xu, Y., Prakash, M., Feng, X., Yang, M., Yang, H., You, I., Li, L., Liu, L., Liu, P., Huang, et al  
2024
- **Circadian Disruption across Lifespan Impairs Glucose Homeostasis and Insulin Sensitivity in Adult Mice.** *Metabolites*  
Her, T. K., Li, J., Lin, H., Liu, D., Root, K. M., Regal, J. F., Alejandro, E. U., Cao, R.  
2024; 14 (2)
- **Differential effects of SARM1 inhibition in traumatic glaucoma and EAE optic neuropathies.** *Molecular therapy. Nucleic acids*  
Liu, P., Chen, W., Jiang, H., Huang, H., Liu, L., Fang, F., Li, L., Feng, X., Liu, D., Dalal, R., Sun, Y., Jafar-Nejad, P., Ling, et al  
2023; 32: 13-27
- **Maprotiline restores ER homeostasis and rescues neurodegeneration via Histamine Receptor H1 inhibition in retinal ganglion cells.** *Nature communications*  
Chen, W., Liu, P., Liu, D., Huang, H., Feng, X., Fang, F., Li, L., Wu, J., Liu, L., Solow-Cordero, D. E., Hu, Y.  
2022; 13 (1): 6796
- **Neuroprotection of SARM1 Inhibition in Traumatic and Glaucomatous but not in EAE Optic Neuropathies**  
Liu, P., Huang, H., Chen, W., Fang, F., Li, L., Feng, X., Liu, L., Liu, D., Dalal, R., Sun, Y., Ling, K., Rigo, F., Hu, et al  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **NMNAT2 and NAD(+) are Downregulated in Glaucomatous RGCs and Overexpression of NMNAT2 Rescues Glaucomatous Neurodegeneration**  
Liu, D., Fang, F., Zhuang, P., Feng, X., Liu, P., Huang, H., Li, L., Chen, W., Liu, L., Sun, Y., Jiang, H., Ye, J., Hu, et al  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
- **Autistic-like behavior and cerebellar dysfunction in *Bmal1* mutant mice ameliorated by mTORC1 inhibition** *MOLECULAR PSYCHIATRY*  
Liu, D., Nanclares, C., Simbriger, K., Fang, K., Lorsung, E., Le, N., Amorim, I., Chalkiadaki, K., Pathak, S., Li, J., Gewirtz, J. C., Jin, V. X., Kofuji, et al  
2023; 28 (9): 3727-3738
- **NMNAT2 Is Downregulated in Glaucomatous RGCs and RGC-Specific Gene Therapy Rescues Neurodegeneration and Visual Function.** *Molecular therapy : the journal of the American Society of Gene Therapy*  
Fang, F., Zhuang, P., Feng, X., Liu, P., Liu, D., Huang, H., Li, L., Chen, W., Liu, L., Sun, Y., Jiang, H., Ye, J., Hu, et al  
1800
- **Disruption of Circadian Rhythms by Ambient Light during Neurodevelopment Leads to Autistic-like Molecular and Behavioral Alterations in Adult Mice** *CELLS*  
Fang, K., Liu, D., Pathak, S. S., Yang, B., Li, J., Karthikeyan, R., Chao, O. Y., Yang, Y., Jin, V. X., Cao, R.  
2021; 10 (12)
- **mTOR signaling regulates central and peripheral circadian clock function** *PLOS GENETICS*  
Ramanathan, C., Kathale, N. D., Liu, D., Lee, C., Freeman, D. A., Hogenesch, J. B., Cao, R., Liu, A. C.  
2018; 14 (5): e1007369