



Nannan Lu

Instructor, Adult Neurology

Bio

ACADEMIC APPOINTMENTS

- Instructor, Adult Neurology

Publications

PUBLICATIONS

- **Plasma proteomic signatures of cellular aging predict human disease.** *Nature medicine*
Ding, D. Y., Bot, V. A., Chen, K. L., Groves, J. W., Pálóvics, R., Masuda, D., Farinas, A., Oh, H. S., Wagner, V., Lu, N., Cruchaga, C., Isakova, A., Schott, et al
2026
- **Cellular Aging Signatures in the Plasma Proteome Record Human Health and Disease.** *bioRxiv : the preprint server for biology*
Ding, D. Y., Bot, V. A., Chen, K. L., Groves, J., Pálóvics, R., Masuda, D., Farinas, A., Oh, H. S., Wagner, V., Lu, N., Cruchaga, C., Isakova, A., Schott, et al
2026
- **Ageing promotes microglial accumulation of slow-degrading synaptic proteins.** *Nature*
Guldner, I. H., Wagner, V. P., Moran-Losada, P., Shi, S. M., Golub, S. W., Hevler, J. F., Chen, K., Meese, B. T., Ghoochani, A., Pulido, E., Oh, H. S., Le Guen, Y., Lu, et al
2026
- **Basic Science and Pathogenesis.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
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2025; 21 Suppl 1 (Suppl 1): e106438
- **Spatial and single-cell transcriptomics reveal the reorganization of cerebellar microglia with aging.** *Cell reports*
Tsai, A. P., Henze, D. E., Ramirez Lopez, E., Haberberger, J., Dong, C., Lu, N., Atkins, M., Costa, E. K., Farinas, A., Oh, H. S., Moran-Losada, P., Le Guen, Y., Isakova, et al
2025; 44 (12): 116624
- **Reduction of neuronal activity mediated by blood-vessel regression in the adult brain.** *Nature communications*
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- **A spatio-temporal brain miRNA expression atlas identifies sex-independent age-related microglial driven miR-155-5p increase.** *Nature communications*
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2025; 16 (1): 4588
- **Glycocalyx dysregulation impairs blood-brain barrier in ageing and disease.** *Nature*
Shi, S. M., Suh, R. J., Shon, D. J., Garcia, F. J., Buff, J. K., Atkins, M., Li, L., Lu, N., Sun, B., Luo, J., To, N. S., Cheung, T. H., McNerney, et al

2025

- **PTER is a N-acetyltaurine hydrolase that regulates feeding and obesity.** *Nature*
Wei, W., Lyu, X., Markhard, A. L., Fu, S., Mardjuki, R. E., Cavanagh, P. E., Zeng, X., Rajniak, J., Lu, N., Xiao, S., Zhao, M., Moya-Garzon, M. D., Truong, et al
2024
- **Atlas of the aging mouse brain reveals white matter as vulnerable foci.** *Cell*
Hahn, O., Foltz, A. G., Atkins, M., Kedir, B., Moran-Losada, P., Guldner, I. H., Munson, C., Kern, F., Pálovics, R., Lu, N., Zhang, H., Kaur, A., Hull, et al
2023
- **Electroacupuncture ameliorates cerebrovascular impairment in Alzheimer's disease mice via melatonin signaling.** *CNS neuroscience & therapeutics*
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2022
- **Young CSF restores oligodendrogenesis and memory in aged mice via Fgf17.** *Nature*
Iram, T., Kern, F., Kaur, A., Myneni, S., Morningstar, A. R., Shin, H., Garcia, M. A., Yerra, L., Palovics, R., Yang, A. C., Hahn, O., Lu, N., Shuken, et al
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- **Exercise plasma boosts memory and dampens brain inflammation via clusterin.** *Nature*
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2021
- **Dysregulation of brain and choroid plexus cell types in severe COVID-19.** *Nature*
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2021
- **Endothelium-derived semaphorin 3G attenuates ischemic retinopathy by coordinating β -catenin-dependent vascular remodeling.** *The Journal of clinical investigation*
Chen, D. Y., Sun, N. H., Chen, X., Gong, J. J., Yuan, S. T., Hu, Z. Z., Lu, N. N., Körbelin, J., Fukunaga, K., Liu, Q. H., Lu, Y. M., Han, F.
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- **Endothelial Cdk5 deficit leads to the development of spontaneous epilepsy through CXCL1/CXCR2-mediated reactive astrogliosis.** *The Journal of experimental medicine*
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- **Cholinergic Grb2-Associated-Binding Protein 1 Regulates Cognitive Function.** *Cerebral cortex (New York, N.Y. : 1991)*
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2018; 28 (7): 2391-2404
- **A fluorescent peptidyl substrate for visualizing peptidyl-prolyl cis/trans isomerase activity in live cells.** *Chemical communications (Cambridge, England)*
Jiang, Q., Li, X. R., Wang, C. K., Cheng, J., Tan, C., Cui, T. T., Lu, N. N., James, T. D., Han, F., Li, X.
2018; 54 (15): 1857-1860
- **Nitration of TRPM2 as a Molecular Switch Induces Autophagy During Brain Pericyte Injury.** *Antioxidants & redox signaling*
Jiang, Q., Gao, Y., Wang, C., Tao, R., Wu, Y., Zhan, K., Liao, M., Lu, N., Lu, Y., Wilcox, C. S., Luo, J., Jiang, L. H., Yang, et al
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- **Melatonin ameliorates hypoglycemic stress-induced brain endothelial tight junction injury by inhibiting protein nitration of TP53-induced glycolysis and apoptosis regulator.** *Journal of pineal research*
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- **Visualizing peroxynitrite fluxes in endothelial cells reveals the dynamic progression of brain vascular injury.** *Journal of the American Chemical Society*
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2014; 21 (1): 1-16