

## Keith Ly

Postdoctoral Scholar, Ophthalmology

### Bio

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#### STANFORD ADVISORS

- Daniel Palanker, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Maximizing the fidelity of a photovoltaic subretinal prosthesis for human patients.** *Journal of neural engineering*  
Jensen, N., Ly, K., Kochnev Goldstein, A., Devaud, Q., Palanker, D.  
2026
- **Computational framework and tools for evaluating engineered channelrhodopsin performance in a degenerated retina.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*  
Zhu, G., Deng, F., Cai, P., Lee, K. G., Sivasamy, A., Wang, R., Italiano, M. L., Li, L., Li, H., Liu, J. K., Tsai, D., Shivdasani, M. N., Lovell, et al  
2025; 2025: 1-4
- **Scaffold on photovoltaic prosthesis replicates the human subretinal debris layer for preclinical studies in rats**  
Bhuckory, M., Shin, A., Ly, K., Mamchik, V., Jensen, N., Devaud, Q., Pham-Howard, D., Goldstein, A., Palanker, D.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Response of the degenerate retina to electrical stimulation is affected by residual photoreceptors**  
Ly, K., Pham-Howard, D., Bhuckory, M., Goldstein, A., Jensen, N., Palanker, D.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Virtual Human Retina: Simulating Neural Signalling, Degeneration, and Responses to Electrical Stimulation.** *Brain stimulation*  
Ly, K., Italiano, M. L., Shivdasani, M. N., Tsai, D., Zhang, J. Y., Jiang, C., Lovell, N. H., Dokos, S., Guo, T.  
2025
- **Optogenetic stimulation of inner retinal neurons restores retinal computations in a virtual degenerated human retina**  
Zhu, G., Cai, P., Deng, F., Sivasamy, A., Lee, K. G., Wang, R., Italiano, M. L., Li, L., Li, H., Liu, J. K., Tsai, D., Lovell, N. H., Shivdasani, et al  
IEEE.2025: 1-6
- **Simulating the impact of photoreceptor loss and inner retinal network changes on electrical activity of the retina** *JOURNAL OF NEURAL ENGINEERING*  
Ly, K., Guo, T., Tsai, D., Muralidharan, M., Shivdasani, M. N., Lovell, N. H., Dokos, S.  
2022; 19 (6)