

Colleen McLaughlin

Basic Life Res Scientist

Biology

Bio

ACADEMIC APPOINTMENTS

- Basic Life Research Scientist, Biology

Publications

PUBLICATIONS

- **Endocytome profiling uncovers cell-surface protein dynamics underlying neuronal connectivity.** *bioRxiv : the preprint server for biology*
McLaughlin, C. N., Ji, H., Dong, K. X., Xu, C., Lam Wong, K. K., Li, Z., Luginbuhl, D. J., Xu, C., Lyu, C., Qin, W., Li, J., Udeshi, N. D., Carr, et al
2025
- **Directed evolution of LaccID for cell surface proximity labeling and electron microscopy.** *Nature chemical biology*
Lee, S., Roh, H., Gonzalez-Perez, D., Mackey, M. R., Hoces, D., McLaughlin, C. N., Lin, C., Adams, S. R., Nguyen, K., Kim, K., Luginbuhl, D. J., Luo, L., Udeshi, et al
2025
- **Dimensionality reduction simplifies synaptic partner matching in an olfactory circuit.** *Science (New York, N.Y.)*
Lyu, C., Li, Z., Xu, C., Wong, K. K., Luginbuhl, D. J., McLaughlin, C. N., Xie, Q., Li, T., Li, H., Luo, L.
2025; 388 (6746): 538-544
- **Directed evolution of the multicopper oxidase laccase for cell surface proximity labeling and electron microscopy.** *bioRxiv : the preprint server for biology*
Lee, S. Y., Roh, H., Gonzalez-Perez, D., Mackey, M. R., Kim, K. Y., Hoces, D., McLaughlin, C. N., Adams, S. R., Nguyen, K., Luginbuhl, D. J., Luo, L., Udeshi, N. D., Carr, et al
2024
- **Dimensionality reduction simplifies synaptic partner matching in an olfactory circuit.** *bioRxiv : the preprint server for biology*
Lyu, C., Li, Z., Xu, C., Wong, K. K., Luginbuhl, D. J., McLaughlin, C. N., Xie, Q., Li, T., Li, H., Luo, L.
2024
- **Molecular and cellular mechanisms of teneurin signaling in synaptic partner matching.** *Cell*
Xu, C., Li, Z., Lyu, C., Hu, Y., McLaughlin, C. N., Wong, K. K., Xie, Q., Luginbuhl, D. J., Li, H., Udeshi, N. D., Svinkina, T., Mani, D. R., Han, et al
2024
- **Scent of a human: The mosquito olfactory system defies dogma to ensure attraction to humans.** *Cell*
McLaughlin, C. N., Luo, L.
2022; 185 (17): 3079-3081
- **In Situ Cell-Surface Proteomics: Method Development and Applications in Neurobiology**
Li, J., Han, S., Xie, Q., Shuster, S. A., Li, H., Udeshi, N. D., Svinkina, T., Carey, D. K., Mani, D. R., Xu, C., Guajardo, R., Chon, U., Luginbuhl, et al
ELSEVIER.2022: S71
- **Isolation and RNA sequencing of single nuclei from Drosophila tissues.** *STAR protocols*
McLaughlin, C. N., Qi, Y., Quake, S. R., Luo, L., Li, H.
2022; 3 (2): 101417

- **Fly Cell Atlas: A single-nucleus transcriptomic atlas of the adult fruit fly.** *Science (New York, N.Y.)*
Li, H., Janssens, J., De Waegeneer, M., Kolluru, S. S., Davie, K., Gardeux, V., Saelens, W., David, F. P., Brbic, M., Spanier, K., Leskovec, J., McLaughlin, C. N., Xie, et al
2022; 375 (6584): eabk2432
- **Temporal evolution of single-cell transcriptomes of *Drosophila* olfactory projection neurons.** *eLife*
Xie, Q., Brbic, M., Horns, F., Kolluru, S. S., Jones, R. C., Li, J., Reddy, A. R., Xie, A., Kohani, S., Li, Z., McLaughlin, C. N., Li, T., Xu, et al
2021; 10
- **Single-cell transcriptomes of developing and adult olfactory receptor neurons in *Drosophila*.** *eLife*
McLaughlin, C. N., Brbić, M. n., Xie, Q. n., Li, T. n., Horns, F. n., Kolluru, S. S., Keschull, J. M., Vacek, D. n., Xie, A. n., Li, J. n., Jones, R. C., Leskovec, J. n., Quake, et al
2021; 10
- **Cell-Surface Proteomic Profiling in the Fly Brain Uncovers Wiring Regulators.** *Cell*
Li, J., Han, S., Li, H., Udeshi, N. D., Svinkina, T., Mani, D. R., Xu, C., Guajardo, R., Xie, Q., Li, T., Luginbuhl, D. J., Wu, B., McLaughlin, et al
2020
- **Single-Cell Transcriptomes Reveal Diverse Regulatory Strategies for Olfactory Receptor Expression and Axon Targeting.** *Current biology : CB*
Li, H. n., Li, T. n., Horns, F. n., Li, J. n., Xie, Q. n., Xu, C. n., Wu, B. n., Keschull, J. M., McLaughlin, C. N., Kolluru, S. S., Jones, R. C., Vacek, D. n., Xie, et al
2020