

# Stanford

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## Lucie Y. Guo

- Clinical Scholar, Ophthalmology
- Fellow in Graduate Medical Education

### Bio

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#### CLINICAL FOCUS

- Ophthalmology

#### INSTITUTE AFFILIATIONS

- Clinical Scholar, Ophthalmology
- Member, Maternal & Child Health Research Institute (MCHRI)

#### HONORS AND AWARDS

- Stanford-Coulter Translational Research Award, Stanford Bioengineering (2021)
- VitreoRetinal Surgery Foundation Research Award, VRSF (2021)
- Career Starter Grant, Knights Templar Eye Foundation (2020)
- Appointee, NEI T32 Vision Postdoctoral Training Program, Stanford University (2019)
- Alpha Omega Alpha (AOA) Medical Honor Society, University of Pennsylvania (2018)
- Saul Winegrad Award for Outstanding PhD Dissertation, University of Pennsylvania (2018)
- Charles A. Oliver Memorial Prize, Scheie Eye Institute, University of Pennsylvania (2018)
- Jeffrey Berger Medical Student Award, Scheie Eye Institute, University of Pennsylvania (2018)
- P. Leslie Dutton Award for Best Publication in Biochemistry and Biophysics, University of Pennsylvania (2015)
- Stuart L. Fine Ophthalmology Medical Student Research Prize, Scheie Eye Institute, University of Pennsylvania (2014)
- NIH Individual NRSA MD/PhD F30 Fellowship, NCI (2014)
- Appointee, Structural Biology and Molecular Biophysics T32 Training Grant, University of Pennsylvania (2013)
- Thomas Temple Hoopes Prize, Harvard University (2010)

#### PROFESSIONAL EDUCATION

- Residency: Stanford University Ophthalmology Residency (2023) CA
- Internship: Santa Clara Valley Medical Center Internal Medicine Residency (2019) CA
- Medical Education: Perelman School of Medicine University of Pennsylvania (2018) PA
- AB, Harvard University , Biochemical Sciences (2010)
- PhD, University of Pennsylvania , Biochemistry and Molecular Biophysics (2018)
- MD, Perelman School of Medicine, University of Pennsylvania , Medicine (2018)

## Research & Scholarship

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### LAB AFFILIATIONS

- Stanley Qi (7/1/2019)

### Publications

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#### PUBLICATIONS

- Scalable biological signal recording in mammalian cells using Cas12a base editors. *Nature chemical biology*  
Kempton, H. R., Love, K. S., Guo, L. Y., Qi, L. S.  
2022
- Multiplexed genome regulation in vivo with hyper-efficient Cas12a. *Nature cell biology*  
Guo, L. Y., Bian, J., Davis, A. E., Liu, P., Kempton, H. R., Zhang, X., Chemparakthy, A., Gu, B., Lin, X., Rane, D. A., Xu, X., Jamiolkowski, R. M., Hu, et al  
2022
- A buoyant mass in the brain: Intraventricular migration of silicone oil. *American journal of ophthalmology case reports*  
Guo, L. Y., Jamiolkowski, R. M., Hassan, M., Leng, T.  
2022; 25: 101399
- Inheritance of CENP-A Nucleosomes during DNA Replication Requires HJURP DEVELOPMENTAL CELL  
Zasadzinska, E., Huang, J., Bailey, A. O., Guo, L. Y., Lee, N. S., Srivastava, S., Wong, K. A., French, B. T., Black, B. E., Foltz, D. R.  
2018; 47 (3): 348-+
- Centromeres are maintained by fastening CENP-A to DNA and directing an arginine anchor-dependent nucleosome transition. *Nature communications*  
Guo, L. Y., Allu, P. K., Zandarashvili, L., McKinley, K. L., Sekulic, N., Dawicki-McKenna, J. M., Fachinetti, D., Logsdon, G. A., Jamiolkowski, R. M., Cleveland, D. W., Cheeseman, I. M., Black, B. E.  
2017; 8: 15775
- A Dual Inhibitory Mechanism Sufficient to Maintain Cell-Cycle-Restricted CENP-A Assembly. *Molecular cell*  
Stankovic, A., Guo, L. Y., Mata, J. F., Bodor, D. L., Cao, X. J., Bailey, A. O., Shabanowitz, J., Hunt, D. F., Garcia, B. A., Black, B. E., Jansen, L. E.  
2017; 65 (2): 231-246
- The CENP-A nucleosome bound by CENP-C and CENP-N is the fundamental unit for maintaining centromere identity.  
Guo, L. Y., Zandarashvili, L., McKinley, K. L., Sekulic, N., Fachinetti, D., Cleveland, D. W., Cheeseman, I. M., Black, B. E.  
AMER SOC CELL BIOLOGY.2016
- The CENP-L-N Complex Forms a Critical Node in an Integrated Meshwork of Interactions at the Centromere-Kinetochore Interface. *Molecular cell*  
McKinley, K. L., Sekulic, N., Guo, L. Y., Tsinman, T., Black, B. E., Cheeseman, I. M.  
2015; 60 (6): 886-98
- Chromosomes. CENP-C reshapes and stabilizes CENP-A nucleosomes at the centromere. *Science (New York, N.Y.)*  
Falk, S. J., Guo, L. Y., Sekulic, N., Smoak, E. M., Mani, T., Logsdon, G. A., Gupta, K., Jansen, L. E., Van Duyne, G. D., Vinogradov, S. A., Lampson, M. A., Black, B. E.  
2015; 348 (6235): 699-703
- Both tails and the centromere targeting domain of CENP-A are required for centromere establishment. *The Journal of cell biology*  
Logsdon, G. A., Barrey, E. J., Bassett, E. A., DeNizio, J. E., Guo, L. Y., Panchenko, T., Dawicki-McKenna, J. M., Heun, P., Black, B. E.  
2015; 208 (5): 521-31
- Iron increases APP translation and amyloid-beta production in the retina. *Experimental eye research*  
Guo, L. Y., Alekseev, O., Li, Y., Song, Y., Dunaief, J. L.  
2014; 129: 31-7
- CENP-C Locks the CENP-A Nucleosome into a Conventionally Shaped Octameric Histone Core that is Incompletely Wrapped with DNA  
Falk, S. J., Sekulic, N., Guo, L. Y., Mani, T., Gupta, K., Van Duyne, G., Vinogradov, S., Black, B. E.  
AMER SOC CELL BIOLOGY.2013

● **Aph-1 associates directly with full-length and C-terminal fragments of gamma-secretase substrates.** *The Journal of biological chemistry*  
Chen, A. C., Guo, L. Y., Ostaszewski, B. L., Selkoe, D. J., LaVoie, M. J.  
2010; 285 (15): 11378-91

● **Analysis of methylation-sensitive transcriptome identifies GADD45a as a frequently methylated gene in breast cancer.** *Oncogene*  
Wang, W., Huper, G., Guo, Y., Murphy, S. K., Olson, J. A., Marks, J. R.  
2005; 24 (16): 2705-14