Stanford



Brent Young

Instructor, Ophthalmology

Bio

ACADEMIC APPOINTMENTS

- Instructor, Ophthalmology

HONORS AND AWARDS

- RReSTORe Travel Award, RReSTORe meeting (May 2024)
- K99 EY036954, NIH NEI (January 2025-Present)
- Military Vision Symposium Travel Award, Harvard Medical School (February 2025)
- Knights Templar Eye Foundation Early Career Award, Knights Templar Eye Foundation (2023-Present)
- Invited presentation, “Rising Stars.”, Western chapter of the Association of Biomolecular Resource Facilities (2021)
- Retina Research Foundation/Joseph M, and Eula C. Lawrence grant, ARVO (2016)
- Rio Mesa Fellowship, University of Utah (2012)

PROFESSIONAL EDUCATION

- B.S., University of Utah , Biology (2013)
- Ph.D., University of Utah , Neuroscience (2019)

Publications

PUBLICATIONS

- **Structural and Functional Pathology Associated with Retinal Ganglion Cell Dysfunction and Death in a Neurofibromatosis type 1 mouse model**
  de Lima, S., Young, B., Yu, S., Monavarfeshani, A., Zhu, Y., Gutmann, D., Sanes, J., He, Z., Goldberg, J. L., Benowitz, L.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2026
- **119 Vitrectomy and immunosuppression enhance survival and engraftment of human ESC-derived retinal ganglion cells in a porcine model**
  Yu, Z., Li, B., Maxfield, S., Aggarwal, D., Nemani, S., Deboer, C., Xia, X., Luo, Z., Rao, M., Young, B., Goldberg, J.
  CELL PRESS.2026: 216-217
- **Brightening Ocular Cells with Nanoparticles under OCT**
  Chen, F., Jiang, L., Luo, Z., Nahmou, M., Young, B., Maya, J., Myung, D., Goldberg, J.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Early knockout of NF1 expression combined with universal heterozygosity produces a more human-like mouse model**
  Young, B., Maya, J., Tsien, C., Rivas, J., Goldberg, J. L.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025

- **Axon guidance in central nervous system regeneration.** *Developmental cell*
  Young, B. K., Goldberg, J. L.
  2024; 59 (24): 3190-3192
- **Retinal ganglion cell transplantation disrupts light responses in control but not in NF1 glioma retinas**
  Young, B., Yu, Z., Nahmou, M., Goldberg, J.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **BDNF and cAMP are neuroprotective in a porcine model of traumatic optic neuropathy.** *JCI insight*
  Heng, K., Young, B. K., Li, B., Nies, A. D., Xia, X., Wen, R. R., Dalal, R., Bramblett, G. T., Holt, A. W., Cleland, J. M., Harris, J. N., Wu, A. Y., Goldberg, et al
  2024
- **The Cousa objective: a long-working distance air objective for multiphoton imaging in vivo.** *Nature methods*
  Yu, C. H., Yu, Y., Adsit, L. M., Chang, J. T., Barchini, J., Moberly, A. H., Benisty, H., Kim, J., Young, B. K., Heng, K., Farinella, D. M., Leikvoll, A., Pavan, et al
  2023
- **Retinal ganglion cell repopulation for vision restoration in optic neuropathy: a roadmap from the RReSTORe Consortium.** *Molecular neurodegeneration*
  Soucy, J. R., Aguzzi, E. A., Cho, J., Gilhooley, M. J., Keuthan, C., Luo, Z., Monavarfeshani, A., Saleem, M. A., Wang, X., Wohlschlegel, J., RReSTORe Consortium, Baranov, P., Di Polo, A., et al
  2023; 18 (1): 64
- **Campana cells in mammalian retinas**
  Du, R., Young, B., Wang, P., Tian, N.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2023
- **An uncommon neuronal class conveys visual signals from rods and cones to retinal ganglion cells.** *Proceedings of the National Academy of Sciences of the United States of America*
  Young, B. K., Ramakrishnan, C., Ganjawala, T., Wang, P., Deisseroth, K., Tian, N.
  2021; 118 (44)
- **The Susceptibility of Retinal Ganglion Cells to Optic Nerve Injury is Type Specific.** *Cells*
  Yang, N., Young, B. K., Wang, P., Tian, N.
  2020; 9 (3)
- **NMDA receptor activity regulates synaptic connections between retinal ganglion and bipolar cells**
  Young, B., Sanchez, C., Ramakrishnan, C., Wang, P., Deisseroth, K., Tian, N.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **An unique subtype of BCs provides excitatory input to both ON and OFF synaptic pathways from both rods and cones in the retina**
  Tian, N., Young, B., Ramakrishnan, C., Wang, P., Deisseroth, K., Ganjawala, T. H., Pan, Z.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **Virtual reality method to analyze visual recognition in mice.** *PloS one*
  Young, B. K., Brennan, J. N., Wang, P., Tian, N.
  2018; 13 (5): e0196563
- **Adult zebra finches rehearse highly variable song patterns during sleep.** *PeerJ*
  Young, B. K., Mindlin, G. B., Arneodo, E., Goller, F.
  2017; 5: e4052
- **Retinal ganglion cell subtype specific circuits in retina**
  Tian, N., Young, B., Huang, K., Wang, P., Ramakrishnan, C., Deisseroth, K.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2016
- **From the retina to the brain: retinal ganglion cell subtype specific visual circuits**
  Young, B., Wang, P., Ramakrishnan, C., Deisseroth, K., Tian, N.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2016