Stanford



# James Jaggard

Instructor, Psychiatry and Behavioral Sciences

## Bio

### ACADEMIC APPOINTMENTS

- Instructor, Psychiatry and Behavioral Sciences

### PROFESSIONAL EDUCATION

- PhD, Florida Atlantic University , Biological Sciences-Neuroscience (2020)
- BA, University of Nevada , Music (2014)
- BS, University of Nevada , Neuroscience (2014)

## Publications

### PUBLICATIONS

- **Engulfment by brain macrophages in a short-lived vertebrate.** *bioRxiv : the preprint server for biology*
  Nagvekar, R., Pogson, A. N., Kalakuntla, P. R., Barr, H. J., Jaimes, A. M., Perry, S. V., Costa, E. K., Chen, J., Boos, F., Negredo, P. N., Seeker, L. A., Jaggard, J. B., Barajas, et al
  2026
- **Kirigami Restraint of Danionella Cerebrum for Long-Term Live Imaging**
  Wang, A., Wang, A., Jaggard, J. B., Wang, G. X., Mourrain, P.
  protocols.io.
  2025
- **The Genetics of Sleep** *The Oxford Handbook of Sleep and Sleep Disorders*
  Jaggard, J. B., Ngo, K. J., Mourrain , P.
  2025
- **Blind cavefish retain functional connectivity in the tectum despite loss of retinal input.** *Current biology : CB*
  Lloyd, E., McDole, B., Privat, M., Jaggard, J. B., Duboué, E. R., Sumbre, G., Keene, A. C.
  2022
- **Hybridization underlies localized trait evolution in cavefish.** *iScience*
  Moran, R. L., Jaggard, J. B., Roback, E. Y., Kenzior, A., Rohner, N., Kowalko, J. E., Ornelas-García, C. P., McGaugh, S. E., Keene, A. C.
  2022; 25 (2): 103778
- **Repeated evolution of circadian clock dysregulation in cavefish populations.** *PLoS genetics*
  Mack, K. L., Jaggard, J. B., Persons, J. L., Roback, E. Y., Passow, C. N., Stanhope, B. A., Ferrufino, E., Tsuchiya, D., Smith, S. E., Slaughter, B. D., Kowalko, J., Rohner, N., Keene, et al
  2021; 17 (7): e1009642
- **Non-REM and REM/paradoxical sleep dynamics across phylogeny.** *Current opinion in neurobiology*
  Jaggard, J. B., Wang, G. X., Mourrain, P.

2021; 71: 44-51

- **Cavefish brain atlases reveal functional and anatomical convergence across independently evolved populations** *SCIENCE ADVANCES*
  Jaggard, J. B., Lloyd, E., Yuiska, A., Patch, A., Fily, Y., Kowalko, J. E., Appelbaum, L., Duboue, E. R., Keene, A. C.
  2020; 6 (38)
- **Unique transcriptional signatures of sleep loss across independently evolved cavefish populations.** *Journal of experimental zoology. Part B, Molecular and developmental evolution*
  McGaugh, S. E., Passow, C. N., Jaggard, J. B., Stahl, B. A., Keene, A. C.
  2020
- **Sleep Regulates Glial Plasticity and Expression of the Engulfment Receptor Draper Following Neural Injury.** *Current biology : CB*
  Stanhope, B. A., Jaggard, J. B., Gratton, M., Brown, E. B., Keene, A. C.
  2020; 30 (6): 1092-1101.e3
- **An Adult Brain Atlas Reveals Broad Neuroanatomical Changes in Independently Evolved Populations of Mexican Cavefish.** *Frontiers in neuroanatomy*
  Loomis, C., Peuß, R., Jaggard, J. B., Wang, Y., McKinney, S. A., Raftopoulos, S. C., Raftopoulos, A., Whu, D., Green, M., McGaugh, S. E., Rohner, N., Keene, A. C., Duboue, et al
  2019; 13: 88
- **Stable transgenesis in Astyanax mexicanus using the Tol2 transposase system.** *Developmental dynamics : an official publication of the American Association of Anatomists*
  Stahl, B. A., Peuß, R., McDole, B., Kenzior, A., Jaggard, J. B., Gaudenz, K., Krishnan, J., McGaugh, S. E., Duboue, E. R., Keene, A. C., Rohner, N.
  2019; 248 (8): 679-687
- **Manipulation of Gene Function in Mexican Cavefish.** *Journal of visualized experiments : JoVE*
  Stahl, B. A., Jaggard, J. B., Chin, J. S., Kowalko, J. E., Keene, A. C., Duboué, E. R.
  2019
- **Automated Measurements of Sleep and Locomotor Activity in Mexican Cavefish.** *Journal of visualized experiments : JoVE*
  Jaggard, J. B., Lloyd, E., Lopatto, A., Duboue, E. R., Keene, A. C.
  2019
- **Nonrandom RNAseq gene expression associated with RNAlater and flash freezing storage methods.** *Molecular ecology resources*
  Passow, C. N., Kono, T. J., Stahl, B. A., Jaggard, J. B., Keene, A. C., McGaugh, S. E.
  2019; 19 (2): 456-464
- **Evolutionary shift towards lateral line dependent prey capture behavior in the blind Mexican cavefish.** *Developmental biology*
  Lloyd, E., Olive, C., Stahl, B. A., Jaggard, J. B., Amaral, P., Duboué, E. R., Keene, A. C.
  2018; 441 (2): 328-337
- **Convergence on reduced stress behavior in the Mexican blind cavefish.** *Developmental biology*
  Chin, J. S., Gassant, C. E., Amaral, P. M., Lloyd, E., Stahl, B. A., Jaggard, J. B., Keene, A. C., Duboue, E. R.
  2018; 441 (2): 319-327
- **Hypocretin underlies the evolution of sleep loss in the Mexican cavefish.** *eLife*
  Jaggard, J. B., Stahl, B. A., Lloyd, E., Prober, D. A., Duboue, E. R., Keene, A. C.
  2018; 7
- **The lateral line confers evolutionarily derived sleep loss in the Mexican cavefish.** *The Journal of experimental biology*
  Jaggard, J., Robinson, B. G., Stahl, B. A., Oh, I., Masek, P., Yoshizawa, M., Keene, A. C.
  2017; 220 (Pt 2): 284-293
- **Distinct genetic architecture underlies the emergence of sleep loss and prey-seeking behavior in the Mexican cavefish.** *BMC biology*
  Yoshizawa, M., Robinson, B. G., Duboué, E. R., Masek, P., Jaggard, J. B., O'Quin, K. E., Borowsky, R. L., Jeffery, W. R., Keene, A. C.
  2015; 13: 15