

# Stanford

---



## Abbey Thompson

Director, Stanford at The Tech, Genetics

### Bio

---

#### BIO

Abbey Thompson started directing the Stanford at The Tech program for Stanford Genetics in March 2018. Prior to that, she received her Ph.D. in Genetics from Stanford University, completing her dissertation research with Dr. David Kingsley. During graduate school, she studied the molecular mechanisms underlying the evolution of new traits in vertebrates, using stickleback fish and mice as model systems. Before arriving at Stanford, she did post-baccalaureate work with Dr. Laufey Amundadottir at the National Cancer Institute (NCI), characterizing GWAS SNPs associated with pancreatic cancer. She received her B.A. in Biology from Northwestern University in 2011.

She has many years of experience teaching science in a variety of settings. During graduate school she participated in many different science outreach opportunities. Most notably, she participated in the "Stanford at the Tech" program, which introduced her to The Tech Museum and informal education in that setting. She also taught STEM education for the non-profit group Science from Scientists, bringing hands-on science activities to middle school students. In addition, she volunteered in a variety of different forums, including the Stanford Science Bus, which brought hands-on science activities to a local elementary school; Stanford Medical Youth Science Program, for targets underprivileged high school students who are interested in careers in STEM fields; and panel discussions on genome editing in local high schools.

#### CURRENT ROLE AT STANFORD

Her main focus is a program initially developed over 15 years ago called "Stanford at The Tech." This is a program that uses The Tech Interactive in San Jose as a backdrop for graduate students and postdoctoral fellows to learn how to effectively communicate science to the public. The program has proven to be both successful and popular with these young scientists. Every week for two quarters, participants lead hands-on genetics activities for museum visitors, and receive feedback to improve their communication skills.

#### EDUCATION AND CERTIFICATIONS

- Ph.D., Stanford University , Genetics (2018)
- B.A., Northwestern University , Biology (2011)

#### LINKS

- Understanding Genetics: <http://genetics.thetech.org/>
- LinkedIn Profile: <https://www.linkedin.com/in/abbey-thompson-85404081>

## Professional

---

### WORK EXPERIENCE

- Undergraduate Research Assistant - Northwestern University (11/2009 - 6/2011)
- Post-Baccalaureate Fellow - National Cancer Institute (7/15/2011)
- STEM Instructor - Science from Scientists (9/2016 - 12/2017)
- Graduate Research Assistant - Stanford University (9/2012 - 3/2018)
- Director of Outreach Activities - Stanford University (3/2018 - present)

## Publications

---

### PUBLICATIONS

- **DNA fragility in the parallel evolution of pelvic reduction in stickleback fish.** *Science (New York, N.Y.)*  
Xie, K. T., Wang, G., Thompson, A. C., Wucherpfennig, J. I., Reimchen, T. E., MacColl, A. D., Schluter, D., Bell, M. A., Vasquez, K. M., Kingsley, D. M.  
2019; 363 (6422): 81–84
- **A novel enhancer near the Pitx1 gene influences development and evolution of pelvic appendages in vertebrates.** *eLife*  
Thompson, A. C., Capellini, T. D., Guenther, C. A., Chan, Y. F., Infante, C. R., Menke, D. B., Kingsley, D. M.  
2018; 7
- **Functional characterization of a multi-cancer risk locus on chr5p15.33 reveals regulation of TERT by ZNF148** *NATURE COMMUNICATIONS*  
Fang, J., Jia, J., Makowski, M., Xu, M., Wang, Z., Zhang, T., Hoskins, J. W., Choi, J., Han, Y., Zhang, M., Thomas, J., Kovacs, M., Collins, et al  
2017; 8
- **Three cheers for the three-spined stickleback** *LAB ANIMAL*  
Heng, K., Thompson, A., Chu, D., Kingsley, D. M.  
2016; 45 (11): 421-421
- **CLPTM1L Promotes Growth and Enhances Aneuploidy in Pancreatic Cancer Cells** *CANCER RESEARCH*  
Jia, J., Bosley, A. D., Thompson, A., Hoskins, J. W., Cheuk, A., Collins, I., Parikh, H., Xiao, Z., Ylaya, K., Dzyadyk, M., Cozen, W., Hernandez, B. Y., Lynch, et al  
2014; 74 (10): 2785-2795
- **A Conserved Role for Human Nup98 in Altering Chromatin Structure and Promoting Epigenetic Transcriptional Memory** *PLOS BIOLOGY*  
Light, W. H., Freaney, J., Sood, V., Thompson, A., D'Urso, A., Horvath, C. M., Brickner, J. H.  
2013; 11 (3)
- **Transcription Factor Binding to a DNA Zip Code Controls Interchromosomal Clustering at the Nuclear Periphery** *DEVELOPMENTAL CELL*  
Brickner, D. G., Ahmed, S., Meldi, L., Thompson, A., Light, W., Young, M., Hickman, T. L., Chu, F., Fabre, E., Brickner, J. H.  
2012; 22 (6): 1234-1246