

# Tianbo Qi

The Ye lab, Dorris Neuroscience Center, Scripps Research, San Diego, CA 92121

[tianboqi.github.io](https://tianboqi.github.io)

## EDUCATION

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<b>Ph.D. in Neuroscience</b>   Scripps Research, CA, US	2019 – 2026
<b>B.S. in Biological Science</b>   Tsinghua University, China	2015 – 2019
<b>Exchange Student in Biology</b>   University of Manchester, UK	2017 – 2018

## RESEARCH EXPERIENCE

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<b>Graduate Student Researcher and Postdoctoral Associate</b>   Scripps Research and HHMI	2019 – 2026
Advisor: Li Ye, Ph.D.	
Developed a novel <i>in vivo</i> molecular marker for neuronal inhibition	
Investigated the circuit mechanism of top-down regulation of feeding fragmentation	
<b>Undergraduate Research Assistant</b>   Tsinghua University	2018 – 2019
Advisor: Yi Zhong, Ph.D.	
Investigated the role of insular-amygdala circuit in observational fear learning in mice	

## PUBLICATIONS (\*CO-FIRST AUTHORS)

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- **Qi T**, Krull C, Leung VH, Mardare V, Yang D, Lal N, Ma J, Wang S, Shen H, Zhang A, Zhao B, Seradj SH, Korotkova T, Kennedy A, Ye L. Top-down regulation of ingestive behavior fragmentation. (*BioRxiv*)
- Shen H, **Qi T**, Aggarwal S, Aoi M, Banks A, Ye L. Time-series modeling defines multidimensional animal states to uncover dynamic behavior-physiology interactions. (*in prep*)
- Attarpour A, Osmani J, Rinaldi A, **Qi T**, Lal N, Patel S, Rozak M, Yu F, Cho N, Squair J, McLaurin J, Raffiee M, Deisseroth K, Courtine G, Ye L, Stefanovic B, Goubran M. A deep learning pipeline for 3D brain-wide mapping of local neuronal ensembles in tera-voxel light sheet microscopy. *Nature Methods* (2025). doi.org/10.1038/s41592-024-02583-1.
- Zheng X, Wu B, Liu Y, Simmons SK, Kim K, Clarke GS, Ashiq A, Park J, Li J, Wang Z, Tong L, Wang Q, Rajamani KT, Muñoz-Castañeda R, Mu S, **Qi T**, Zhang Y, Ngiam ZC, Ohte N, Hanashima C, Wu Z, Xu X, Levin JZ, Jin X. Massively parallel *in vivo* Perturb-seq reveals cell-type-specific transcriptional networks in cortical development. *Cell* (2024). doi.org/10.1016/j.cell.2024.04.050.
- Yang D\*, Wang Y\*, **Qi T\***, Zhang X, Shen L, Ma J, Pang Z, Lal NK, McClatchy DB, Seradj SH, Leung VH, Wang K, Xie Y, Polli FS, Maximov A, Gonzalez OC, de Lecea L, Augustine V, Cline HT, Yates JR, Ye L. Phosphorylation of pyruvate dehydrogenase inversely associates with neuronal activity. *Neuron* (2024). doi.org/10.1016/j.neuron.2023.12.015.
- Lovelace J\*, Ma J\*, Yadav S, Chhabria K, Shen H, Pang Z, **Qi T**, Sehgal R, Zhang Y, Bali T, Vaissiere T, Tan S, Liu Y, Rumbaugh G, Ye L, Kleinfeld D, Stringer C, Augustine V. Vagal sensory neurons mediate the Bezold-Jarisch reflex and induce syncope. *Nature* (2023). doi.org/10.1038/s41586-023-06680-7.
- Lal NK, Le P, Aggarwal S, Zhang A, Wang K, **Qi T**, Pang Z, Yang D, Nudell V, Yeo GW, Banks AS, Ye L. Xiphoid nucleus of the midline thalamus controls cold-induced food seeking. *Nature* (2023). doi.org/10.1038/s41586-023-06430-9.

## SKILLS

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**Theoretical:** Computational neuroscience and neural modelling, machine learning and deep learning, statistics and data science.

**Experimental:** Animal behavior, stereotaxic surgery, fiber photometry, optogenetics and chemogenetics.

**Programming:** MATLAB, R, Python (including deep learning with PyTorch).

**Language:** Mandarin Chinese (native), English (fluent), Spanish (intermediate), French (beginner).

**Others:** Webpage design (HTML/CSS) and management.

#### **AWARDS & HONORS**

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- 2021 Helen L. Dorris Scholar, Scripps Research
- 2018 Scholarship of Undergraduate Overseas Research Training Program, 2018 Scholarship of Overall Excellence, 2017 Scholarship of Academic Excellence, Tsinghua University
- 2014 Silver Medal in Chinese National Biology Olympiad

#### **POSTERS & TALKS**

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- 2025 Society for Neuroscience annual meeting (San Diego, CA) – Poster presentation
- 2025 HHMI October Science meeting (Ashburn, VA) – Poster presentation
- 2025 Dorris Neuroscience Center seminar (San Diego, CA) – Talk
- 2023 Society for Neuroscience annual meeting (Washington D.C.) – Poster presentation

#### **MENTORSHIP & TEACHING**

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Mentored undergraduate students and technicians (initials): S.A., J.v.R., C.K.

Teaching assistant, Biology Olympiad Training Program, Center of Mass Co. Ltd., China.

2015 – 2019