GRACE ZHONG | 钟君玥

EDUCATION

PhD candidate, Prakash Lab, Bioengineering, Stanford University (GPA: 4.046/4.3) **2018 - 2025 (Expected)**

Diversifying Academia, Recruiting Excellence (DARE) Doctoral Fellowship ($116,000) 2023 - Present

NIH Stanford Graduate Training Program in Biotechnology 2020 - Present

NSERC postgraduate scholarships - doctoral (63,000 CAD) 2020 - 2023

Stanford bioengineering Agilent fellowship (~$60000) 2020 - 2021

B.ASc, Engineering Science, University of Toronto (GPA: 3.88/4) **2013 - 2018**

Dean's honors list All semesters

Ontario volunteer service award 2014

International Baccalaureate diploma, Bayview Secondary School, Canada **2009 - 2013**

PUBLICATIONS

1. **Zhong, G.**, Toullec, G., Jouneau, P.-H., Decelle, J., Prakash, M. (2025). Long-range actin-driven endosymbiont mobility in a deep-diverging bilaterian. bioRxiv. https://doi.org/10.1101/2025.06.08.658386.
2. **Zhong, G.**, Kroo, L., Prakash, M. (2023). Thermotaxis in an apolar, non-neuronal animal. *Journal of the Royal Society Interface*. https://doi.org/10.1098/rsif.2023.0279
3. **Zhong, G.,** "A computer vision-aided analysis of facial similarities in Song dynasty imperial portraits" (2023). in *Electronic Imaging*, 212-1 - 212-6, https://doi.org/10.2352/EI.2023.35.13.CVAA-212
4. Abramson, A*, Kirtane, A*, Shi, Y*, **Zhong, G.**, […] Langer, R., Traverso, G. (2022). Oral mRNA Delivery Using Capsule-Mediated Gastrointestinal Tissue Injections. *Matter*, https://doi.org/10.1016/j.matt.2021.12.022.
5. Kroo, L., Kothari, A., […], Prakash, M. (2021). Modified full-face snorkel masks as reusable personal protective equipment for hospital personnel. *PloS One,* 16(1), e0244422.
6. Lin, J., Miao, L., **Zhong, G.**, Lin, C.-H., Dargazangy, R., & Alexander-Katz, A. (2020). Understanding the synergistic effect of physicochemical properties of nanoparticles and their cellular entry pathways. *Communications Biology*, 3(1), 1–10.
7. Reker, D., Shi, Y., Kirtane, A. R., Hess, K., **Zhong, G**. J., Crane, E., Lin, C.-H., Langer, R., & Traverso, G. (2020). Machine Learning Uncovers Food-and Excipient-Drug Interactions. *Cell Reports,* 30(11), 3710–3716.
8. Sun, W.*, **Zhong, G.***, Kübel, C., Jelle, A. A., Qian, C., Wang, L., Ebrahimi, M., Reyes, L. M., Helmy, A. S., & Ozin, G. A. (2017). Size-Tunable Photothermal Germanium Nanocrystals. *Angewandte Chemie International Edition,* 56(22), 6329–6334.

RESEARCH EXPERIENCE

PhD Candidate, Prakash Lab, Stanford University **2018 - Present**

- Curiosity-driven questions on mobility in non-model organisms
  - Mobility of symbiotic dinoflagellates found inside marine acoel worm
  - Discovery of thermotaxis in a non-neuronal, apolar animal
- Using computer vision techniques to gain insight into art history questions
  - Facial similarities in Song Dynasty paintings

Undergraduate research, Langer Lab, Massachusetts Institute of Technology **2016 - 2017**

- Designed novel highly-transfecting, biodegradable polymers
- Assisted in projects on 1) effect of ulcerative colitis on gastrointestinal mucus properties, 2) machine learning in drug discovery, 3) nanoparticle-cell interactions

Undergraduate research, Helmy Group, University of Toronto **2014 - 2016, 2017-2018**

- Used Raman spectroscopy to probe relative heating effects in aqueous nanostructure systems
- Analyzed crystalline & photothermal properties of semiconductor nanocrystals
- Waveguide-enhanced Raman spectroscopy to analyze the composition of biological samples
- Supported by NSERC undergraduate student research award (USRA)

Undergraduate research, Choo Lab, California Institute of Technology **2014**

- Nanophotonics-based intraocular pressure sensing and photonics-based insulin sensing
- Supported by Engineering Science Exceptional Opportunities award

CONFERENCE PRESENTATIONS

Long-range actin-driven endosymbiont mobility in an animal-algal symbiosis

06/2025 Gordon Research Conference : Animal-Microbe Symbioses. Portland, ME (Podium presentation)
06/2025 Gordon Research Seminar : Animal-Microbe Symbioses. Portland, ME (Podium presentation)
01/2025 Society of Integrative and Comparative Biology, Atlanta, GA (Podium presentation)
06/2024 JCS2024: Diversity and Evolution in Cell Biology, Seva, Spain (Poster)
Supported by School of Engineering (SoE) Justice, Equity, Diversity & Inclusion (JEDI) Travel Award
05/2024 Microscale Ocean Biophysics, Heron Island, Australia (Podium presentation)
Supported by Bio-X Travel Award
05/2024 Bay Area Cytoskeleton Symposium, Berkeley, CA (Podium presentation)
03/2024 Janelia 4DCP Symposium, Ashburn, VA (Poster)
03/2024 American Physical Society March Meeting, Minneapolis, MN (Podium presentation)
01/2024 Society of Integrative and Comparative Biology, Seattle, WA (Podium presentation)
11/2023 EMBL PhD Symposium - Power of many: collective behavior across scales, Heidelberg, Germany (Podium presentation)
11/2023 Pre-APS-DFD satellite meeting on environmental and biological fluid dynamics, Philadelphia, PA (Podium presentation)

A computer vision-aided analysis of facial similarities in Song dynasty imperial portraits

01/2023 Computer Vision and Image Analysis of Art, San Francisco, CA (Podium presentation)
Awarded **Best Paper**
Supported by Department of East Asian Languages and Cultures travel grant

Thermotaxis in an apolar, non-neuronal animal

01/2023 Society of Integrative and Comparative Biology, Austin, TX (Podium presentation)
Supported by Bio-X Travel Award

CONFERENCE ORGANIZATION

Member of Organizing Committee, Microscale Ocean Biophysics, Corsica, France. (2026)

TEACHING AND PROFESSIONAL SERVICE

Division of Animal Behavior student representative, Student and Postdoc Affairs Committee, Society of integrative and comparative biology **2024 - 2027**

- Co-organized and moderated non-academic careers panel at SICB 2025 meeting, which was one of the most well-attended and well-received conference workshops (~500 attendees)
- Co-organizer for non-academic careers panel at SICB 2026 meeting

Co-instructor, BIOS420: Building connections, defining the future of bioscience. **2024, 2025**

Teaching Assistant, Quantitative Physiology (BIOE 300B), Stanford University **2019**

Program Assistant, SHAD at University of Saskatchewan **2018**

- Worked in a team to design and execute workshops, lectures, and daily activities for 64 high school students in this month-long live-in summer program focused on STEM and entrepreneurship

OTHER LEADERSHIP AND SERVICE

Co-organizer of Shriram Basement Seminar (community building within department) **2023 - 2024**

Student volunteer, Bioengineering graduate admissions committee **2023 - 2025**

Panelist, Beyond the Bachelor's: Mapping Your Future Through Grad School, Asian American Activities Center, Stanford University **2024**

Guest speaker, BIOS 262 (mini-course on non-model organisms), Stanford University **2024**

Speaker, BME Career Pathway Seminar Series, San José State University **2024**

Content creator on Chinese history (https://www.youtube.com/@ninja_whale) **2020 - present**

SURF Graduate student mentor **2020**

Innovation Mentor, JHU COVID-19 Design Challenge **2020**

Academic Mentor, Guided Engineering Academic Review Sessions **2017 - 2018**

Teaching volunteer, Summer Service and Learning Program, Tsinghua University **2017**

- Worked in a team to design and deliver English lessons and motivational talks to high school classes 50-100 students in size in rural Henan. Continued support over WeChat after program ended.

Full year mentor, NSight mentorship program **2014 - 2015**

Advanced badminton instructor, Town of Richmond Hill **2012 - 2013**

- Planned and led team of volunteers in executing lessons for large class sizes

Homework Club Tutor (Volunteer), Welcome Centre Immigrant Services **2010 - 2014**

PATENTS

Traverso, G. et al. Branched poly (-amino esters) for the delivery of nucleic acids. (2022). US patent app US20220287983A1.

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Native Fluency in English and Mandarin Chinese, Working proficiency in French

References available upon request