

Hoki Fung

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Education

- PhD in Neuroscience** 2022 – Expected 2026
 University of California, Los Angeles (UCLA)
 Dissertation: Cerebellar dysfunction in schizophrenia and autism-associated CNVs
 Advisor: Prof. Carrie E. Bearden
 Award: Graduate Dean’s Scholar Award (2022–2024)
- Master of Computing in Artificial Intelligence** 2020 – 2022
 National University of Singapore (NUS), Singapore
 Specialization: Applied machine learning, deep learning, computer vision
- Master of Research in Cognitive Neuroscience** 2015 – 2016
 University College London (UCL), United Kingdom
 Dissertation: Decoding intentions of self and others from fMRI activity patterns
 Advisor: Prof. Sam J. Gilbert
- Bachelor of Arts in Psychology; Minor in Education** 2013 – 2015
 University of California, Berkeley (UC Berkeley)
 Dissertation: Prior knowledge and cross-cultural differences in social causal inference
 Advisor: Prof. Alison Gopnik
 Award: Departmental Honors (2015)

Publications

- **Fung, H.**, O’Hora, K. P., Boen, R., Wang, H.R., Amir, C. M., Schleifer, C. H., ... & Bearden, C. E. (in press). Convergent and Divergent Cerebellar Alterations in 22q11.2 Copy Number Variants. *Biological Psychiatry: Global Open Science*.
- Boen, R., Villalón-Reina, J. E., Kushan, L., O’Hora, K. P., **Fung, H.**, Parker, N., ... & Bearden, C. E. (2026). Gene dosage effects of 22q11.2 copy number variants on in-vivo measures of white matter axonal density and dispersion. *Molecular Psychiatry*, 1–12.
- **Fung, H.**, Potash, R. M., Krystal, A. D., Pizzagalli, D. A., and Sacchet, M. D. (2025). Selective KOR antagonist alters functional patch sizes in individualized brain system: Results from the Fast-fail Trial in Mood and Anxiety Spectrum Disorders (FAST-MAS). *Neuropsychopharmacology*, 50(9), 1430–1438.
- Lin, H.Y., **Fung, H.**, Wang, Y., Ho, R.C.M. and Chen, S.H.A. (2025). A Functional Magnetic Resonance Imaging Investigation of Hot and Cool Executive Functions in Reward and Competition. *Sensors*, 25(3), p.806.
- Schleifer, C. H., Chang S. E., Amir, C. M., O’Hora, K. P., **Fung, H.**, Kang, J. W. D., ... & Bearden, C. E. (2025). Unique functional neuroimaging signatures of genetic versus clinical high risk for psychosis. *Biological Psychiatry*, 97(2), 178–187.
- Schleifer, C. H., O’Hora, K. P., **Fung, H.**, Xu, J., Robinson, T. A., Wu, A. S., ... & Bearden, C. E. (2024). Effects of gene dosage and development on subcortical nuclei volumes in individuals with 22q11.2 copy number variations. *Neuropsychopharmacology*, 49(6), 1024–1032.
- **Fung, H.**, Yeo, B.T.T., Chen, C., Lo, J.C., Chee, M.W.L., and Ong, J.L. (2023). Adherence to 24h movement recommendations and health indicators in early adolescence: Cross-sectional and longitudinal associations in the ABCD study. *Journal of Adolescent Health*, 72(3), 460–470.
- Gilbert, S. J. & **Fung, H.** (2018). Decoding intentions of self and others from fMRI. *NeuroImage*, 172, 278–290.
- Gopnik, A., O’Grady, S., Lucas, C., Griffiths, T., Wenthe, A., Bridger, S., Aboody, R., **Fung, H.**, and Dahl, R. (2017). Changes in cognitive flexibility and hypothesis search from childhood to adolescence to adulthood. *Proceedings of the National Academy of Sciences*, 114(30), 7892–7899.

Research Experience

Graduate Student Researcher — Bearden Lab University of California Los Angeles, USA Advisor: Prof. Carrie E. Bearden	2022 – Present
Graduate Research Intern — Meditation Research Program Massachusetts General Hospital / Harvard Medical School, USA Advisor: Prof. Matthew D. Sacchet	2021 – 2025
Research Associate — Sleep and Cognition Lab NUS Yong Loo Lin School of Medicine, Singapore Advisors: Prof. Michael Chee, Asst. Prof. Ju Lynn Ong	2020 – 2021
Data Scientist — Clinical Imaging Research Centre National University of Singapore (NUS), Singapore Advisors: Prof. Thomas Yeo, Dr. Mary Stephenson	2019 – 2020
Research Associate — Clinical Brain Lab Nanyang Technological University (NTU), Singapore Advisors: Prof. Annabel Chen, Dr. Shu-Hui Lee	2016 – 2018
Student Research Assistant — Metacognition & Executive Functions Group University College London (UCL), UK Advisor: Prof. Sam J. Gilbert	2015 – 2016
Undergraduate Research Assistant — Gopnik Cognitive Developmental Lab University of California, Berkeley, USA Advisors: Prof. Alison Gopnik, Dr. Adrienne Wente	2013 – 2015

Teaching Experience

Teaching Assistant — PSYCTRY 174 Dept. of Psychiatry & Biobehavioral Sciences, UCLA Brain and Behavioral Health: Childhood & Adolescence Lecturer: Prof. Christopher S. Colwell	Spring 2025
Teaching Assistant — PSYCTRY 176 Dept. of Psychiatry & Biobehavioral Sciences, UCLA Brain and Behavioral Health: Adulthood & Aging Lecturer: Prof. Sung-Jae Lee	Winter 2025

Academic Service

Social Media Associate & Fundraiser Knowing Neurons — Nonprofit neuroscience education organisation	2022 – 2024
Neuroscience Newsletter Editor & Web Developer Society for Neuroscience, Singapore Chapter	2021 – 2022

Selected Conference Presentations

- Fung H et al. (2026, Apr). Comparative analysis of cerebellar volume in 22q11.2 and 3q29 deletion syndromes using normative modelling. SOBP Annual Meeting, New York, USA.
- Fung H et al. (2024, Jul). Reduced contralateral cerebello-cortical functional connectivity in 22q11.2 deletion syndrome. NEURO2024, Fukuoka, Japan. [Travel Award]
- Fung H et al. (2024, Jun). 22q11.2 gene dosage effects on cerebello-cortical functional connectivity. OHBM Annual Meeting, Seoul, Korea.
- Fung H et al. (2024, May). 22q11.2 gene dosage effects on cerebello-cortical functional connectivity. SOBP Annual Meeting, Austin, USA.
- Fung H et al. (2023, Apr). 22q11.2 gene dosage effects on regional cerebellar volume phenotypes. SOBP Annual Meeting, San Diego, USA.

- Fung H et al. (2021, Jun). Associations of sleep duration with global cognition and grey matter volume in children aged 9–11. OHBM Annual Meeting, Virtual.
- Fung H et al. (2019, Jun). An fMRI investigation of hot and cool executive functions in adults with ADHD. OHBM Annual Meeting, Rome, Italy.
- Fung H et al. (2018, Jun). Decoding intentions of self and others from fMRI activity patterns. OHBM Annual Meeting, Singapore.
- Fung H et al. (2018, Jun). An fMRI investigation of hot and cool executive functions in healthy adults. OHBM Annual Meeting, Singapore.

Honors & Awards

Travel Award for Foreign Scientists — NEURO2024	2024
Graduate Dean’s Scholar Award — UCLA Graduate Division	2022–2024
SLINGSHOT Top Consumer AI Product — EnterpriseSG	2019
Rolls-Royce Data Innovation Challenge Winner — Rolls-Royce Data Labs	2019
Departmental Honors — Psychology, UC Berkeley	2015

Additional Work Experience

Cognitive Scientist — Neuroglee Therapeutics, Singapore	2021 – 2022
Machine Learning Specialist — Datature, Singapore	2019 – 2022

Additional Training

MRtrix3 Diffusion MRI Workshop — Chang Gung University	Summer 2024
R25 Neuroimaging & Genetics Bootcamp — University of Utah	April 2024
Neurohackademy Summer Course — Neurohackademy	Summer 2020
Computational Neuroscience Summer Course — Neuromatch Academy	Summer 2020
Professional Certificate in Data Science — Harvard University / HarvardX	2018 – 2020

Skills

Project Management	Grant application, IRB application, Scientific writing for annual reports, journal articles, and conference posters, Subject recruitment (online and offline)
Implementation	Experimental design (inc. MR scanning protocol), Computerized and MR scanner compatible neuropsychological task programming, Data collection (inc. scanner operation)
Methodologies	Neuropsychological testing, Behavioral tasks, Survey, Structural MRI (sMRI), task-fMRI, rs-fMRI, diffusion-weighted imaging (DWI)
Data Analytics	Conventional statistics (hypothesis testing), Bayesian approach, Machine Learning, Deep Learning. Mass-univariate, multivariate (e.g. ICA, MVPA), functional connectivity, surface-based, and tract-based analyses
Programming	Python, R, Matlab, Bash, Git, SQL, PsychoPy, E-prime, Qualtrics, MTurk, SPM, FreeSurfer, FSL, REST, CONN, SPSS, JASP, Scikit-learn, Caret, TensorFlow, PyTorch, Matplotlib, Seaborn, ggplot, Remote Servers, HPC Clusters
Communication	Newsletter editing (Mailchimp), Web development (Digital Ocean, Wordpress, HTML, CSS), Writing (Markdown, LaTeX), Video editing, Graphic Design
Languages	Fluent in English, Cantonese, Mandarin