

Keng loi Vong, Ph.D.

(858) 241-7696

kivong@health.ucsd.edu

Training and Education

05/2021-Present	Postdoctoral Researcher, with Dr. Joseph G. Gleeson, Department of Neurosciences, University of California, San Diego, Rady Children's Institute for Genomic Medicine, San Diego, CA, USA
01/2019-04/2021	Research Assistant, with Dr. Kin-Ming Kwan, Cell and Molecular Biology Program, The Chinese University of Hong Kong, Hong Kong SAR
08/2012-12/2018	Ph.D. in Biology, with Dr. Kin-Ming Kwan, Cell and Molecular Biology Program, The Chinese University of Hong Kong, Hong Kong SAR
09/2009-07/2012	B.S. in Cell and Molecular Biology, School of Life Sciences, The Chinese University of Hong Kong, Hong Kong SAR

Research Experience

Trained as a developmental neurobiologist in graduate school, I identified the molecular pathway that established blood-cerebrospinal fluid barrier during embryogenesis and discovered the regulatory mechanisms of temporal progenitor fate switch in the developing brain. In my postdoctoral research, I received training in neurobiology and human genetics. I discovered genetic variants underlying neurodevelopmental disorders and identified pathological mechanisms. I also resolved the lineage relationships and developmental dynamics of the peripheral nervous system. Furthermore, I developed cutting edge methods for studying genetic mosaicism and contributed to understanding the role of somatic mosaicism in neurological diseases.

Funding

1. **Awarded.** (PI), 2025. Simons Foundation, SFARI Career Transition Award.
(\$600,000 /3 yrs for independent lab and \$220,000 /2 yrs for postdoctoral position)

Representative Publications

1. [Vong, KI*](#), Lee S* et al., Gleeson JG. [Risk of meningomyelocele mediated by the common 22q11.2 deletion.](#) **Science**. 384, 584-590 (2024).
2. [Vong KI](#) et al., Gleeson JG. [Genetic somatic mosaicism reveals developmental dynamics of trunk neural crest-derived ganglia.](#) **bioRxiv** (2024), in revision at **Nature**.
3. [Vong KI](#) et al., Kwan KM. [SOX9-COL9A3-dependent regulation of choroid plexus epithelial polarity governs blood-cerebrospinal fluid barrier integrity.](#) **Proc Natl Acad Sci USA**. 118(6):e2009568118 (2021).
4. [Vong KI*](#), Leung CKY* et al., Kwan KM. [Sox9 is critical for suppression of neurogenesis but not initiation of gliogenesis in the cerebellum.](#) **Mol Brain**. 8:25 (2015).

Other Research Publications

5. Ha YJ, Tang I, Nisal A, Jhamb I, Wallace C, Schroeder S, Lee C, Vong KI, et al., Gleeson JG. [The contribution of de novo coding mutations to meningomyelocele](#). **Nature** (2025). <https://doi.org/10.1038/s41586-025-08676-x>
6. Chung C, Yang X, Hevner RF, Kennedy K, Vong KI, et al., Gleeson JG. [Cell-type-resolved mosaicism reveals clonal dynamics of the human forebrain](#). **Nature**. 629, 384-392 (2024).
7. Wang L, Heffner C, Vong KI, et al., Gleeson JG. [TMEM161B modulates radial glial scaffolding in neocortical development](#). **Proc Natl Acad Sci USA**. 120(4):e2209983120 (2023).
8. Chung C, Yang X, Bae T, Vong KI, et al., Gleeson JG. [Comprehensive multi-omic profiling of somatic mutations in malformations of cortical development](#). **Nat Genet**. 55, 209-220 (2023).
9. Ma TC, Vong KI, Kwan KM. [Spatiotemporal Decline of BMP Signaling Activity in Neural Progenitors Mediates Fate Transition and Safeguards Neurogenesis](#). **Cell Rep**. 30, 3616-3624 (2020).

Academic membership

Postdoc Member, Society of Developmental Biology (SDB)

Trainee Member, American Society of Human Genetics (ASHG)

Honors and Awards

2025	Simons Foundation Autism Research Initiative, Fellow-to-Faculty Career Transition Award
2024	Young Investigator Award, 7 th International Enteric Nervous System Development Meeting
2017	Travel Award, 18 th International Congress of Developmental Biology (ISDB)
2017	Best Presentation Award, Annual Hong Kong Universities Symposium in Biomedical Science
2015	Best Presentation Award, Graduate symposium, School of Life Sciences, The Chinese University of Hong Kong
2014	Travel Award, 47 th Annual Meeting of the Japanese Society of Developmental Biologists

Invited Talks

05/2025	Digestive Disease Week 2025, Annual Meeting of American Gastroenterology Association, San Diego, CA. " <i>Single-cell genomics of the ENS</i> "
02/2025	Ethyl Browne Harvey Postdoctoral Seminar Series (2024-2025), Society for Developmental Biology. " <i>Genomic mosaicism reveals developmental dynamics of trunk neural crest-derived ganglia</i> "
03/2024	7 th International Enteric Nervous System Development Meeting, Philadelphia, PA. " <i>Enteric neuronal diversity in full length human intestine at single cell resolution</i> "
06/2017	Annual Hong Kong Universities Symposium for Biomedical Science, Hong Kong. " <i>Development of the choroid plexus</i> "

Mentorship experience

2024-Present	Joseph Girgiss	Undergraduate thesis student, Gleeson lab
2022-Present	Ashna Nisal	BS/MS student, Gleeson lab
2022-2024	Fiza Jiwani	Undergraduate researcher, Gleeson lab; Current position: Medical Scribe, Coastal Spine and Pain Diagnostics
2021-2023	Kameron Alu	Undergraduate thesis student, Gleeson lab; Current position: Research Associate, Becton Dickinson
2022	Rachel Oshiro	MSTP rotation student, UCSD
2020-2021	Genper Chi-Ngai Wong	Undergraduate researcher, Kwan lab; Current position: Graduate student, Stanford University
2019	Chloe Chiang	Undergraduate researcher, Kwan lab; Current position: MBChB student, the Chinese University of Hong Kong
2017-2018	Ivan Kung	Undergraduate researcher, Kwan lab
2014-2015	Hiuyi Hui	Undergraduate thesis student, Kwan lab
2013-2015	Yaoyu Gong	Undergraduate researcher, Kwan lab; Current position: Graduate student, University of Pennsylvania

Teaching experience

2024-2025	Teaching Assistant, BIOM 201, "Seminars in Biomedical Research", University of California San Diego
2012-2018	Teaching Assistant, CMBI 3010 "Cell and Molecular Biology Laboratory-I", Chinese University of Hong Kong
2012-2018	Teaching Assistant, CMBI 3020 "Cell and Molecular Biology Laboratory-II", Chinese University of Hong Kong

Outreach activities

2017-2020	Mentor for SURP, Chinese University of Hong Kong Promoting science to high school and exchange students
-----------	--