

Miley Sinantha-Hu (they/she) – Curriculum Vitae

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EDUCATION

Stanford University Stanford, CA, USA

Master of Science Biology (Coterminal Degree)

August 2021 – June 2022

Advisor: Dr. Liqun Luo

GPA: 4.06/4.00

Stanford University Stanford, CA, USA

August 2017 – June 2022

Bachelor of Science Biology with Honors, Education Policy Minor

- Biology Senior Reflection, Interdisciplinary Arts Capstone: *Soil Studies*
- Honors Thesis: *Proteomic Profiling of Purkinje Cell Surface Reveals the Critical Role of Armadillo-like helical domain containing protein 4 in Mammalian Dendrite Morphogenesis*. Awarded Firestone Medal for Excellence.

RESEARCH

Research Associate, China Medical Board Southeast Asia Program

Vientiane, Lao PDR

PI: Drs. Roger Glass, Piya Hanvoravongchai

October 2024 – Present

- Analyze Lao PDR datasets for Chulalongkorn University working group scoping review of ASEAN data availability

Research Study Coordinator, Swiss Tropical and Public Health Institute, Dept. of Epidemiology

Vientiane, Lao PDR

PI: Drs. Günther Fink, Peter Odermatt, Somphou Sayasone, and Jordyn Wallenborn

January 2023 – Present

- Manage data collection of prospective multi-generational birth cohort that enrolled over 16,000 participants
- Mentor 3 MSc students from University of Basel and ETH Zürich to implement sub-study fieldwork

Research Associate, Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit

Vientiane, Lao PDR

PI: Drs. Audrey Dubot-Pérès and Matthew Robinson

January 2023 – Present

- Assess and map nationwide seroprevalence of hepatitis E virus via ELISA assay of provincial blood donations

U.S. Fulbright Research Fellow, Lao Tropical Public Health Institute

Vientiane, Lao PDR

PI: Dr. Somphou Sayasone

August 2022 – May 2023

- Interviewed village health volunteers for ethnographic account of *O. viverrini* liver fluke prevention in rural areas
- Assisted FECT diagnostic screening for large multi-package WASH, MDA, and education One Health intervention

Research Assistant, Stanford University, Dept. of Biology

Stanford, CA, USA

PI: Dr. Liqun Luo

January 2019 – June 2022

- Applied forward genetics to investigate cell-surface protein regulation of dendrite morphogenesis in mice

PUBLICATIONS and PRESENTATIONS

Wallenborn, J., **Sinantha-Hu, M.**, Ouipoulkoune, V., Kounnavong, S., Siengsounthone, L., Probst-Hensch, N., Odermatt P., Sayasone, S., & Fink, G. (2025) Study Protocol: A Longitudinal Multigenerational Birth Cohort in Lao People's Democratic Republic. *BMC Public Health*. (Accepted; Expected January 2025)

Loss, G., Wallenborn, J., **Sinantha-Hu, M.**, Ouipoulkoune, V., Probst-Hensch, N., Sayasone, S., Kounnavong, S., Odermatt, P., & Fink, G. Evaluating hypertension care cascade in adults in Lao PDR: Evidence from VITERBI Cohort Study. (Submitted)

Sinantha-Hu, M. Hepatitis E Virus Seroprevalence in Blood Donations from 17 Provincial Blood Centers, Lao PDR. Poster presentation at: Lao National Health Research Forum. 24-25 2024 October; Vientiane Capital, Lao PDR. Awarded 3rd prize for oral presentation and poster score among approx. 40 posters.

Sinantha-Hu, M. VientianemulTi gEnERational BirTh (VITERBI) Cohort Study Protocol and Population Characteristics: Exploring Sampling Techniques and Baseline Data for Large Cohort Study in Lao PDR. Poster presentation at: Lao National Health Research Forum. 24-25 2024 October; Vientiane Capital, Lao PDR. 4th highest score of approx. 40 posters.

Sinantha-Hu, M. Adolescent Pregnancy and Marriage in Four Socioeconomically Diverse Districts of Vientiane Capital, Lao PDR: Results from Prospective Multi-generational Birth Cohort. Oral presentation at: Lao-UNFPA Adolescent Research Development Conference. 23 2024 October; Vientiane Capital, Lao PDR.

Sinantha-Hu, M. Estimating anti-Hepatitis E Virus Immunoglobulin G Positive Rate and Mapping Seroprevalence in all 18 Provinces of Laos. Poster presentation at: U.S. NSF Ecology and Evolution of Infectious Disease Conference. 2024 June 25; Stanford University, Stanford, CA.

Sinantha-Hu, M. Profiling Critical Cell Surface Proteins in Neuronal Dendrite Morphogenesis. Presented at: Stanford University Dept. of Biology, Departmental Honors Thesis Symposium. 2022 May 20; Stanford University, Stanford, CA. One of four undergraduates selected to present from a thesis cohort of 60.

Shuster, S. A., Li, J., Chon, U., **Sinantha-Hu, M. C.**, Luginbuhl, D. J., Udeshi, N. D., Carey, D. K., Takeo, Y. H., Xie, Q., Xu, C., Mani, D. R., Han, S., Ting, A. Y., Carr, S. A., & Luo, L. (2022). In situ cell-type-specific cell-surface proteomic profiling in mice. *Neuron*, 110(23), 3882–3896.e9. <https://doi.org/10.1016/j.neuron.2022.09.025>

Takeo, Y. H., Shuster, S. A., Jiang, L., **Hu, M. C.**, Luginbuhl, D. J., Rüllicke, T., Contreras, X., Hippenmeyer, S., Wagner, M. J., Ganguli, S., & Luo, L. (2021). GluD2- and Cbln1-mediated competitive interactions shape the dendritic arbors of cerebellar Purkinje cells. *Neuron*, 109(4), 629–644.e8. <https://doi.org/10.1016/j.neuron.2020.11.028>

WORK EXPERIENCE

Health Emergency Preparedness Analyst, San Mateo County Emergency Medical Services **South San Francisco, CA, USA**
August 2020 – September 2021

- Managed FEMA grant fulfillment while analyzing and presenting COVID-19 community data to stakeholders

Emergency Medical Technician (EMT), San Mateo County Emergency Medical Services **South San Francisco, CA, USA**
March 2020 – September 2021

- Cared for COVID-19 patients in an acute alternate care site, administered vaccines at mass vaccination clinic

TEACHING EXPERIENCE

International Program for Health in the Tropics, Lao Tropical Public Health Institute **Vientiane, Lao PDR**
Lecturer, English for Health Science September 2022 – Present

- Design and teach curriculum on English (USA) academic writing conventions for over 70 Lao MSc students

Dept. of Emergency Medicine, Stanford School of Medicine **Stanford, CA, USA**
Teaching Assistant, EMED 111: Emergency Medical Technician Training Fall 2018, Winter 2020

- Lectured and led practica on National Registry of EMT standards for medical, trauma, and patient assessment

HONORS, AWARDS, and FELLOWSHIPS

Firestone Medal for Excellence in Undergraduate Research: \$500.00 **June 2022**
Awarded by Stanford University to the top 10% of undergraduate honors theses in the School of Humanities and Sciences

U.S. Fulbright Open Study/Research Award: \$22,000.00 **May 2022**
10-month full funding in Lao PDR at the Lao Tropical and Public Health Institute

Stanford Institute for Diversity in the Arts (IDA) Fellowship: \$8,000 **October 2021 – June 2022**
3 academic quarters funding for original art commissions exploring visionary arts and social justice

Stanford Biology Summer Undergraduate Research Fellowship: \$7,500.00 **June 2019, June 2020**
3-month funding to conduct wet lab experiments

Education Partner Fellowship: \$10,000.00 **January 2020**
12-month funding awarded by Stanford University Haas Center for Public Service to design science-teaching curricula

Joint Science-Education Grant: \$8,000.00 **June 2018**
3-month funding awarded by Stanford University Haas Center for Public Service to conduct wet lab experiments

VOLUNTEERING and ACTIVITIES (Current in Vientiane, Lao PDR)

- **Open Street Map Laos:** (co-founder) working group increasing open-access geospatial data availability for Laos
- **Panya.nivej Pottery Studio:** teaching pottery to local school-aged youths and processing natural clay onsite

SKILLS

- **Wet Lab (BSL-3):** PCR, ELISA, LAMP, FECT, CRISPR-Cas9, cloning, microscopy, tissue histology
- **Dry lab:** STATA18, R, GIS, Open Data Kit (ODK), DHIS2, Adobe Suite, Imaris, LaTeX, CAD
- **Qualitative:** semi-structured interview, ethnography, encoding analysis, knowledge-attitudes-perception survey
- **Languages:** English (Native), Lao (Fluent), Thai (Intermediate), Spanish (Intermediate)