

Kristen Aiemjoy, PhD, MSc

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Positions

Assistant Professor - Oct 2021 -

****University of California Davis School of Medicine****

****Division of Epidemiology****

****Department of Public Health Sciences****

Adjunct Assistant Professor - Jan 2023 -

****Mahidol University Faculty of Tropical Medicine****

****Department of Microbiology and Immunology****

****Bangkok, Thailand****

Visiting Scientist - June 2022 -

****Mahidol Oxford Tropical Medicine Research Unit****

****Epidemiology Unit****

****Bangkok, Thailand****

Postdoctoral Research Fellow - 2018 - 2021

****Stanford University School of Medicine****

****Division of Infectious Diseases and Geographic Medicine****

Education

University of California San Francisco — 2013 - 2018

PhD Epidemiology

Thesis: *Serologic approaches to trachoma surveillance and the estimation of force of infection*

London School of Hygiene and Tropical Medicine — 2010 - 2011

MSc Public Health

Georgetown University, Walsh School of Foreign Service — 2006 - 2010

BSc Foreign Service & Global health, Cum Laude

Publications

Saiprom N, Nimmuan-ngam S, Phunpang R, Schildhauer SH, Morrison AC, Driemeyer C, Hennig N, Vaidya K, Tran V, Blacksell SD, Limmathurotsakul D, Bougnom BP, Aiemjoy K, Seidman JC, Pan-ngum W, Suttinont C, Blumberg S. Multiplex serosurveillance for Japanese encephalitis virus, dengue virus, Leptospira spp., and Plaut's murine typhus in rural northeastern Thailand. *In preparation*

Gwyn, S, Morrison, E, True, T, Morrison, A, Shakya, M, et al, **Aiemjoy K**, Charles, R. Renormalizing Antibody Measurements from Enzyme-Linked Immunosorbent Assays: Implications for Diagnosis and Surveillance* *SSRN Preprint*. 2025 Jun 23.

Lai KW, Orwa C, Seidman JC, Garrett DO, Saha SK, Tamrakar D, Qamar FN, Khan MI, Andrews JR, **Aiemjoy K**, et al. The Impact of Typhoid Conjugate Vaccine and SARS-CoV-2 on Incidence of Typhoidal Salmonella in Four Endemic Settings (pre-print)* (<https://pubmed.ncbi.nlm.nih.gov/40502584/>) *medRxiv*. 2025 Jun.

Tamrakar D, Naga S, Jung E, Shrestha B, Bista Roka P, Pokharel R, Shrestha J, Regmi R, Thapa B, Aryal S, Chaudhary B, Adhikari S, Bhattacharai M, Teunis P, Charles RC, Yu AT, Kutawal N, Aryal U, Sakya K, Raut S, Sharma J, Stuart A, Bloem P, Joshi RD, Shakya M, Scobie HM, *Aiemjoy K*, LeBoa C. Impact of the COVID-19 pandemic and typhoid conjugate vaccine introduction on healthcare utilization and enteric fever incidence in Nepal: interrupted time series analyses (<https://www.medrxiv.org/content/2025/06/18/2025.06.17.25329748.full.pdf>) *medRxiv*. 2025 Jun.

Khan A, Kamenskaya P, Rezende I, Mutuku F, Ndenga BA, Jembe Z, Mwangangi J, Asu G, Mwanzangu B, Kasouywe K, Olawepo O, Kumalija J, Muchara S, Thiongo J, Boulangé A, Ante-Testard P, Tapera O, Heddini A, Bengtsson L, Kiware S, **Aiemjoy K**, Kitty Fo. Estimates of malaria seroconversion rate in children in Kenya: implications for elimination metrics in hotspot foci.

(<https://www.medrxiv.org/content/10.1101/2025.06.24.25330223v1>) medRxiv.
2025 Jun.

Seidman JC, **Aiemjoy K**, Adnan M, Dehraj IF, Iqbal J, Iqbal K, Islam A, Kanchana M, Karki S, Kanungo S, Qamary I, Kennedy WA, Sajib MSI, Shaik Z, Khatun F, Vaid N, Taverez K, Thapa M, Tran V, Andrews JR, Garrett DO, Saha SK, Campbell JI. Enteric Fever in the Post-COVID-19 Era: Surveillance, Serosurveys, and the Need for Ongoing Systematic Burden Measurement. (<https://www.medrxiv.org/content/10.1101/2025.06.20.25329792v1>) medRxiv. 2025 Jun.

Kamau E, Ante-Testard PA, Gwyn S, Blumberg S, Abdalla Z, **Aiemjoy K**, Amza A, Aragie S, Arzika AM, Boisson S, Bornali F, Chepkigo S, Chisalita S, Cook C, Eccles-Radtke C, Gebreyohanns M, Hugo P, Jeannot E, Mikesell C, Nelson J, Nyathi E, Okoko I, Rondeau V, Saadatian-Elahi M, Salio O, Schramm B, Talbert-Slage K, Turner EL, Masquelier B. Direct and indirect effects of a cholera vaccine campaign in Africa. (<https://www.nature.com/articles/s41467-025-60581-z>) *Nature Communications*. 2025 Jan.

Abraham D, Kathiresan L, Sasikumar M, **Aiemjoy K**, Charles RC, Kumar D, Srinivasan R, Troman C, Limmathurotsakul D, Pan-Ngum W, Blacksell SD, Suttinont C. Cytokines associated with scrub typhus infection severity, endothelial activation, and treatment response in northeast Thailand. *PLoS Negl Trop Dis.* 2025 Mar 3;19(3):e0012373. PMID: 40029872

Kutawal N, Thapa M, Shrestha S, Vaidya K, Bogoch II, Shrestha R, Aryal U, Charles RC, Seidman J, et al. (2020) The SARS-CoV-2 genome: A resource for global surveillance and analysis. *bioRxiv* 2020.2020.2020.259330; doi: <https://doi.org/10.1101/259330>.

****Aiemjoy K**, Kutawal N, Vaidya K, Shrestha S, Thapa M, Teunis P, Yu AT, Seidman JC, Charles p1014.xml?af=R *Am J Trop Med Hyg*. 2024 Jun 11; PMID: 38861980.**

Looareesuwan P, **Aiemjoy K**, Charoensakulchai S, Thaipadungpanit J, Stuart A, Blacksell SD. 2023 Dec; 19: e308. doi: 10.1093/jtm/taad143. PMID: 37599900. PMCID: PMC9703223. © The Author(s) 2023. Published by Academic Press on behalf of International Society of Travel Medicine.

LeBoa C, Shrestha S, Shakya J, Naga SR, Shrestha S, Shakya M, Yu AT, Cuddy E, Longley R, Adhikari B, et al. Household-level exposures and *Salmonella* Typhi and Paratyphi in Nepal: a cross-sectional environmental surveillance study. (<https://doi.org/10.1371/journal.pntd.0011341>) *

****Aiemjoy K**, Yu AT, Hogrefe K, Shakya J, Nagar SR, Ruan J, Yasmin R, Islam M, Crump JA, An**

Falls L, **Aiemjoy K**, Shi L, Charles EC, Mount KE, Monnerat S, Fudacz ND, Warren WJ, Weber resistant plasmid. (<https://www.mdpi.com/2079-6382/12/1/171>) *Antibiotics*. 2023 Jan 10;12(1):171.

- Jafri RZ, Martin LB, **Aiemjoy K**, Espinoza L, Johnson SB, Price TK, Khan MI, Vogt TM, Chai income countries. (<https://pubmed.ncbi.nlm.nih.gov/34710318/>) *Infect Dis Poverty*. 2021 Oct 1;4(1):19.
- Burke RM, Ray TL, Abeels M, Boley C, **Aiemjoy K**, Eckel S. High element concentrations found in based ice melts- Michigan, USA. (<https://pubmed.ncbi.nlm.nih.gov/33393244/>) *BMC Public Health*. 2021 Dec 1;21(1):181.
- **Aiemjoy K**, Katz J, Carlton E, Gerome P, Worrell CM, Truscott JE, Yard E, Wishart DL, Watson Leste. (<https://pubmed.ncbi.nlm.nih.gov/33093571/>) *Am J Trop Med Hyg*. 2021 Jan;104(1):176-181. PMID: 33093571
- Yasir M, Greiner T, **Aiemjoy K**, Boujija YB, Siddiqi U, Ahmed MN, Carlson MS. Clinically available.
- Ram M, **Aiemjoy K**, Phuanukoonnon S, Laman M, Senn N, Lau CL, Kazura J, Walker P, Yan J, Tatem JA. Limited settings: a systematic review and meta-analysis. (<https://pubmed.ncbi.nlm.nih.gov/32909357/>) *Int J Antimicrob Agents*. 2021 Mar;57(3):106454.
- Zhou Z, Rowe A, Miller S, **Aiemjoy K**, Arnold BF. Estimating the acidity of atmospheric water. (<https://pubmed.ncbi.nlm.nih.gov/31657067/>) *Environ Monit Assess*. 2021 Feb;245:2454. PMID: 31657067
- **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/31185348/>) *Environ Monit Assess*. 2021 Feb;245:815. PMID: 31185348
- **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/31286334/>) *Environ Monit Assess*. 2021 Feb;245:40. PMID: 31286334
- Yohannan J, **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/31188162/>) *Environ Monit Assess*. 2021 Feb;245:2063. PMID: 31188162
- **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/30479790/>) *Environ Monit Assess*. 2021 Feb;245:125. PMID: 30479790
- Liao W, **Aiemjoy K**, Friedman H, Mendoza R, Lam SW, Nazifovich Y, Ngo V, Peng C, Permenter J, et al. Led project to increase youth utilization of sexual and reproductive health services at a Chinese university. (<https://pubmed.ncbi.nlm.nih.gov/29119592/>) *Environ Monit Assess*. 2021 Feb;245:446. PMID: 29119592
- **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/30048453/>) *Environ Monit Assess*. 2021 Feb;245:404. PMID: 30048453
- Stocks ME, **Aiemjoy K**, Freeman MC, Clasen T. Prevalence of water aid point sources in China. (<https://pubmed.ncbi.nlm.nih.gov/26233881/>) *Environ Monit Assess*. 2021 Feb;245:119. PMID: 26233881
- **Aiemjoy K**, Gebresillasie S, Stoller NE, Shiferaw A, Tadesse Z, Aristide C, Zewudie B, Canfield RE. (<https://pubmed.ncbi.nlm.nih.gov/25236693/>) *Environ Monit Assess*. 2021 Dec;20(6):598-604. PMID: 25236693

Invited Presentations

- Mahidol University Faculty of Tropical Medicine, Bangkok, Thailand. “Antibody dynamics and serosurveillance for enteric fever.” 2024.
- Aga Khan University, Karachi, Pakistan. “Antibody dynamics and serosurveillance for enteric fever.” 2023.
- Dhulikhel Hospital, Kathmandu University, Nepal. “Antibody dynamics and serosurveillance for enteric fever.” 2023.
- National Academy of Sciences Workshop on Serological Assays, Washington, DC. “Serosurveillance for enteric fever” 2022.
- Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand. “Establishing a seroepidemiology lab in Bangkok.” 2022.
- The AIDS Support Organization (TASO), Entebbe, Uganda. “Developing adolescent-friendly sexual and reproductive health services in a Ugandan catholic school.” 2012.
- Médecins Sans Frontières, London, UK. “Developing adolescent-friendly SRH services in a Ugandan catholic school.” 2012.

Scientific Conference Presentations

- American Society of Tropical Medicine & Hygiene (ASTMH) Annual Meeting, 2024. “Enteric Fever Incidence in children in South Asia” Oral presentation.
- ASTMH Annual Meeting, 2024. “Environmental surveillance for Salmonella Typhi and Paratyphi in Nepal.” Oral presentation.
- ASTMH Annual Meeting, 2023. “Scrub typhus seroepidemiology and serosurveillance.” Oral presentation.
- ASTMH Annual Meeting, 2023. “Typhoid serosurveillance using antibody dynamics.” Oral presentation.
- ASTMH Annual Meeting, 2022. “Estimation of enteric fever incidence from community-based serosurveys.” Oral presentation.
- ASTMH Annual Meeting, 2021. “Recurrent enteric fever infections in children in South Asia.” Oral presentation.
- International Conference on Typhoid & Other Invasive Salmonelloses, 2021. “Estimating typhoid incidence from serosurveys in LMICs.” Oral presentation.
- International Conference on Typhoid & Other Invasive Salmonelloses, 2019. “Serological incidence estimation of typhoid in LMICs.” Oral presentation.
- APHA Annual Meeting, 2018. “Student-led project to increase youth utilization of SRH services at a California high school.” Poster.
- APHA Annual Meeting, 2015. “Water aid point sources in Guangdong Province, China.” Poster.
- UCSF Global Health Day, 2014. “Trachoma serology and seroconversion rate measurement in Amhara, Ethiopia.” Poster.

Conference Symposiums and workshops

- Organizer/Chair, Symposium on “Serosurveillance for typhoid and other enteric infections”, ASTMH 2024.
- Co-organizer, Workshop on “Serologic tools for enteric fever surveillance”, Typhoid Conference 2023.
- Panelist, Workshop on “Seroepidemiologic methods for neglected tropical diseases”, ASTMH 2022.

Grants and Fellowships

K01-TW012177: Estimating the Seroincidence of Melioidosis, Typhoid Fever and Scrub Typhus from Antibody Dynamics

Role: Principal Investigator

Funder: NIH Fogarty International Center

Years: 2021–2026

R21-AI162934: Antibody dynamics and serosurveillance for enteric fever in South Asia

Role: Co-Investigator

Funder: NIAID

Years: 2021–2024

Bill & Melinda Gates Foundation: Seroepidemiology platform for enteric infections

Role: Co-Investigator

Years: 2023–2026

Thrasher Research Fund Early Career Award

Project: Serologic tools for scrub typhus surveillance in Nepal

Role: Principal Investigator

Multiple additional internal UC Davis and Mahidol University seed grants, pilot awards, and trainee awards as in original CV.

Additional Research Experience

Research Fellow — 2013–2018

UCSF Francis I. Proctor Foundation for Research in Ophthalmology

Epidemiology and seroepidemiology of trachoma and neglected tropical diseases; implementation research and field surveys in Ethiopia, Niger, and other settings.

Research Coordinator — 2011–2013

The AIDS Support Organization (TASO), Uganda

Led adolescent sexual and reproductive health intervention design and evaluation; qualitative and quantitative data collection; health services research.

Student Researcher — 2011

Ifakara Health Institute

Tanzania

Student Researcher — 2011
The AIDS Support Organization (TASO)
Uganda

Honors and Awards

Coalition Against Typhoid, Female Leader in Typhoid – 2024
NIH Fogarty K01 Mentored Research Scientist Development Award – 2021
Thrasher Research Fund Early Career Award – 2019
LSHTM Trust Scholarship – 2010-2011
Chadwick Trust Traveling Fellowship – 2011
Cum Laude, Georgetown University – 2010

Media Coverage

The importance of inclusivity to take on typhoid (<https://www.coalitionagainsttyphoid.org/the-importance-of-inclusivity-to-take-on-typhoid/>) Coalition Against Typhoid – 03/07/24

Environmental sampling detects typhoid bacteria in Nepal (<https://www.coalitionagainsttyphoid.org/environmental-sampling-detects-typhoid-bacteria-in-nepal/>) Coalition Against Typhoid – 11/28/23

Typhoid mutated to beat antibiotics. Science is learning how to beat those strains (<https://www.coalitionagainsttyphoid.org/typhoid-mutated-to-beat-antibiotics-science-is-learning-how-to-beat-those-strain/>) NPR – 07/28/22

Easier, more accurate method to detect typhoid infections demonstrated by new study (<https://www.coalitionagainsttyphoid.org/easier-more-accurate-method-to-detect-typhoid-infections-demonstrated-by-new-study/>) UC Davis Health News – 06/29/22

New Technique Detects Typhoid Infections Faster (<https://www.technologynetworks.com/diagnostics/article/new-technique-detects-typhoid-infections-faster-363193>) Technology Networks: Diagnostics – 06/30/22

Reality bite: How a UC Davis epidemiologist is balancing her research and family life (<https://www.coalitionagainsttyphoid.org/reality-bite-how-a-uc-davis-epidemiologist-is-balancing-her-research-and-family-life/>) UC Davis Health News – 12/03/24

How a simple blood test could help control enteric fever (<https://scopeblog.stanford.edu/2022/07/06/typhoid-one-finger-prick-at-a-time/>) Stanford Medicine Scope – 07/06/22

Typhoid detection technique improves diagnostic sensitivity (<https://www.medgadget.com/2022/07/typhoid-detection-technique-improves-diagnostic-sensitivity.html>) medgadget – 07/12/22