Stanford



Seth Ari Sim-Son Hoffman

Instructor, Medicine - Infectious Diseases

CLINICAL OFFICE (PRIMARY)

- **Infectious Disease Clinic**

  300 Pasteur Dr Rm L134

  Lane Bldg MC 5107

  Stanford, CA 94305

  Tel (650) 723-9062 **Fax** (650) 498-9876

Bio

BIO

Research to benefit under-served populations.

Dr. Hoffman is a physician-scientist in Stanford's Division of Infectious Diseases & Geographic Medicine. He leads a research program developing tools to characterize and interrupt the mild and subclinical ("cryptic") transmission of pathogens that drive antimicrobial resistance or pose pandemic risk. His work, informed by over two decades of experience in molecular and computational biology and clinical investigation, is driven by a commitment to improving human and planetary health.

Dr. Hoffman is PI of an NIH K23 award (1K23AI182452-01: "Modeling the Impact of Interventions to Reduce Typhoidal Salmonella Transmission in the Indo-Pacific"), which is an add-on research effort to the Wellcome Trust-funded Revitalising Informal Settlements and their Environments (RISE) program. He is co-investigator on a Thrasher Research Fund E.W. "Al" Thrasher" Award entitled "Quantifying the True Burden of Pediatric Typhoidal Salmonella in Dhaka, Bangladesh," studying the subclinical/mild fraction of typhoidal Salmonella incidence in Dhaka, Bangladesh. He previously led the analysis of a cluster randomized controlled trial of a pediatric typhoid conjugate vaccine campaign program in Navi Mumbai, India.

He is a co-investigator on studies which aim to determine the intensity of Far-UVC light (222nm) and amount of triethylene glycol vapor required to inactivate SARS-CoV-2 virus in human-generated respiratory aerosols from outpatients positive for SARS-CoV-2. He is co-investigator on a Stanford Beckman Technology Development Seed Grant “Innovating Far-UVC LED Technologies for Scalable Pandemic Prevention" to develop novel LEDs that emit effective doses of Far-UVC (222nm) for pathogen disinfection.

CLINICAL FOCUS

- Infectious Diseases
- Epidemiology
- Global Health

- Planetary Health
- Health Equity
- Emerging Infectious Disease
- Infectious Disease

ACADEMIC APPOINTMENTS

- Instructor, Medicine - Infectious Diseases
- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- NIH K23 Career Development Award, NIAID (2024 - present)
- ICFUST Travel Award, International Congress on Far-UVC Science and Technology (ICFUST) (2024)
- Global Health Seed Grant Winner, Stanford Center for Innovation in Global Health (2022)
- Benjamin H. Kean Travel Fellowship in Tropical Medicine, American Society of Tropical Medicine & Hygiene (2014)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, International Ultraviolet Association (IUVA) Healthcare Working Group (2025 - present)
- Affiliate, Stanford Center for Human and Planetary Health (2025 - present)
- Global Health Faculty#Fellow, Center for Innovation in Global Health (CIGH) (2024 - present)
- Member, Benjamin Kean Travel Fellowship Award Committee, ASTMH (2023 - present)
- Member, Infectious Diseases Society of America (IDSA) (2020 - present)
- Member, American Society of Tropical Medicine and Hygiene (ASTMH) (2011 - present)

PROFESSIONAL EDUCATION

- Postdoctoral Research Fellowship, Infectious Diseases, Stanford University School of Medicine (2024)
- MS, Stanford University , Epidemiology and Clinical Research (2023)
- Board Certification: Infectious Disease, American Board of Internal Medicine (2022)
- Fellowship: Stanford University Infectious Disease Fellowships (2022) CA
- Board Certification: Internal Medicine, American Board of Internal Medicine (2020)
- Residency, Internal Medicine, University of Maryland Medical Center (2020)
- MD, The Medical School for International Health (MSIH), Ben-Gurion University of the Negev Faculty of Health Sciences in collaboration with Columbia University Irving Medical Center (2017)
- BA, Cornell University , Anthropology (2012)

LINKS

- ORCID iD: https://orcid.org/0000-0002-7881-3605
- Luby Lab: https://lubylab.stanford.edu
- NIH MyBibliography: https://www.ncbi.nlm.nih.gov/myncbi/seth.hoffman.2/bibliography/public/
- Stanford CIGH: https://globalhealth.stanford.edu/center-postdoctoral-affiliates/
- Stanford Woods Institute: https://woods.stanford.edu/people/seth-hoffman
- Twitter: https://twitter.com/SethAHoffmanMD

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Clinical research to benefit underserved populations.

PROJECTS

- NIH 1K23AI182452-01 Modeling the Impact of Interventions to Reduce Typhoidal Salmonella Transmission in the Indo-Pacific. (September 11, 2024 - August 31, 2029)
- Quantifying the True Burden of Pediatric Typhoidal Salmonella in Dhaka, Bangladesh (November 1, 2024 - October 31, 2027)
- Assessing Salmonella Typhi Contamination of Water in Urban Settings of Liberia (July 31, 2022 - September 1, 2024)

LAB AFFILIATIONS

- Stephen Luby, The Luby Lab (12/4/2020)

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Epidemiology (Masters Program)
- Infectious Diseases (Fellowship Program)

Publications

PUBLICATIONS

- **Validation of sample pooling for high-throughput RT-qPCR subtyping of avian influenza A(H5).** *Microbiology spectrum*
  Higerd-Rusli, G. P., Hoffman, S. A., Karan, A., Huang, C., Sahoo, M. K., Morante, I. E., Hernandez, M. M., Pinsky, B. A.
  2026: e0085026
- **Lower limit of detection of commercial respiratory virus reverse transcriptase-polymerase chain reaction panels for bovine influenza A(H5N1).** *American journal of clinical pathology*
  Higerd-Rusli, G. P., Hoffman, S. A., Karan, A., Huang, C., Sahoo, M. K., Hernandez, M. M., Pinsky, B. A.
  2026; 165 (6)
- **One confirmed and one potential human case of influenza A(H5N1) detected through an expanded subtyping protocol.** *ASM case reports*
  Higerd-Rusli, G. P., Karan, A., Hoffman, S. A., Morante, I. E., Huang, C., Sahoo, M. K., Hernandez, M. M., Pinsky, B. A.
  2026; 1 (2)
- **The Role and Safety of Aluminum Adjuvants in Childhood Vaccines.** *Pediatrics*
  Nirenberg, E., Maldonado, Y. A., Hoffman, S. A.
  2025
- **Factors Influencing Vaccine Receipt During a 2018 Pediatric Typhoid Conjugate Vaccine Campaign in Navi Mumbai, India.** *The American journal of tropical medicine and hygiene*
  Borhade, P., LeBoa, C., Jayaprasad, N., Date, K., Haldar, P., Harvey, P., Shimpi, R., An, Q., Zhang, C., Horng, L., Fagerli, K., Yewale, V. N., Daruwalla, et al
  2024
- **Field Effectiveness of a Typhoid Conjugate Vaccine: The 2018 Navi Mumbai Pediatric TCV Campaign.** *The American journal of tropical medicine and hygiene*
  Date, K., LeBoa, C., Hoffman, S. A., Haldar, P., Harvey, P., An, Q., Zhang, C., Yewale, V. N., Daruwalla, S., Dharmapalan, D., Gavhane, J., Joshi, S., Rai, et al
  2024
- **Emerging and re-emerging pediatric viral diseases: a continuing global challenge.** *Pediatric research*
  Hoffman, S. A., Maldonado, Y. A.

2023

- **Retrospective Review of Blood Culture-Confirmed Cases of Enteric Fever in Navi Mumbai, India: 2014-2018.** *The American journal of tropical medicine and hygiene*
  Jayaprasad, N., Borhade, P., LeBoa, C., Date, K., Joshi, S., Shimpi, R., Andrews, J. R., Luby, S. P., Hoffman, S. A.
  2023
- **Population structure and antimicrobial resistance patterns of Salmonella Typhi and Paratyphi A amid a phased municipal vaccination campaign in Navi Mumbai, India.** *mBio*
  da Silva, K. E., Date, K., Hirani, N., LeBoa, C., Jayaprasad, N., Borhade, P., Warren, J., Shimpi, R., Hoffman, S. A., Mikoleit, M., Bhatnagar, P., Cao, Y., Haldar, et al
  2023: e0117923
- **Programmatic Effectiveness of a Pediatric Typhoid Conjugate Vaccine Campaign in Navi Mumbai, India.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Hoffman, S. A., LeBoa, C., Date, K., Haldar, P., Harvey, P., Shimpi, R., An, Q., Zhang, C., Jayaprasad, N., Horng, L., Fagerli, K., Borhade, P., Chakraborty, et al
  2023
- **Chronic Salmonella Typhi carriage at sites other than the gallbladder.** *PLoS neglected tropical diseases*
  Hoffman, S. A., Sikorski, M. J., Levine, M. M.
  2023; 17 (3): e0011168
- **Point-of-Care Ultrasound by Nonexpert Operators Demonstrates High Sensitivity and Specificity in Detecting Gallstones: Data from the Samoa Typhoid Fever Control Program.** *The American journal of tropical medicine and hygiene*
  Hoffman, S., Desai, S., Sikorski, M., Fatupaito, G., Tupua, S., Thomsen, R., Rambocus, S., Nimarota-Brown, S., Punimata, L., Sialeipata, M., Tuilagi, C., Han, J., Robins-Browne, et al
  2022
- **SARS-CoV-2 Neutralization Resistance Mutations in Patient with HIV/AIDS, California, USA.** *Emerging infectious diseases*
  Hoffman, S. A., Costales, C., Sahoo, M. K., Palanisamy, S., Yamamoto, F., Huang, C., Verghese, M., Solis, D. C., Sibai, M., Subramanian, A., Tompkins, L. S., Grant, P., Shafer, et al
  2021; 27 (10)
- **Tenacious Endemic Typhoid Fever in Samoa.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Sikorski, M. J., Desai, S. N., Tupua, S., Thomsen, R. E., Han, J., Rambocus, S., Nimarota-Brown, S., Punimata, L., Tusitala, S., Sialeipata, M., Hoffman, S. A., Tracy, J. K., Higginson, et al
  2020; 71 (Supplement_2): S120-S126
- **Miliary pattern on chest imaging as a presentation of EGFR-negative primary lung adenocarcinoma.** *BMJ case reports*
  Hoffman, S. A., Manski, S., Deepak, J.
  2019; 12 (5)
- **Female Anopheles gambiae antennae: increased transcript accumulation of the mosquito-specific odorant-binding-protein OBP2.** *Parasites & vectors*
  Hoffman, S. A., Aravind, L., Velmurugan, S.
  2012; 5: 27
- **Programmed Cell Death during Malaria Parasite Infection of the Vertebrate Host and Mosquito Vector** *Programmed Cell Death in Protozoa*
  Baton, L. A., Warr, E., Hoffman, S. A., Dimopoulos, G.
  edited by Perez Martin, J.
  Springer.2008: 74–90
- **Light deprivation affects larval development and arrestin gene expression in Anopheles stephensi.** *Journal of medical entomology*
  Hoffman, S., Subramanian, G. M.
  2005; 42 (5): 801-4

PRESENTATIONS

- A Randomized Controlled Trial of Indoor Air Cleaning Interventions to Reduce Respiratory Virus Transmission in School Children in Dhaka City, Bangladesh - The 2nd International Congress on Far-UVC Science and Technology (ICFUST)