

Stanford



Florian Bach

Postdoctoral Scholar, Infectious Diseases

Bio

BIO

I'm a molecular infection biologist by training, but shifted my focus from pathogens to hosts for my graduate research. During my PhD with Phil Spence in Edinburgh I studied both falciparum and vivax malaria using controlled human (re)infection models, collaborating closely with the groups of Simon Draper and Angela Minassian in Oxford. As a hybrid bioinformatician and experimentalist, I love systems immunology for answering complex questions about human health. For my postdoc, I study in how the human immune response to malaria evolves in infants as they become reinfected and age. I'm also interested in how such early-life immunological events, malaria and beyond, may affect vaccine responses and immune development later in life. I address this question by making use of a longitudinal study cohort of infants receiving monthly chemoprevention in Eastern Uganda, together with our collaborators at UC San Francisco and IDRC Uganda.

HONORS AND AWARDS

- The Walter V. and Idun Berry Postdoctoral Fellowship Program, The Walter V. and Idun Berry Foundation (09/01/2023)

STANFORD ADVISORS

- Prasanna Jagannathan, Postdoctoral Research Mentor
- Prasanna Jagannathan, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **A systematic analysis of the human immune response to Plasmodium vivax.** *The Journal of clinical investigation*
Bach, F. A., Muñoz Sandoval, D., Mazurczyk, M., Themistocleous, Y., Rawlinson, T. A., Harding, A. C., Kemp, A., Silk, S. E., Barrett, J. R., Edwards, N. J., Ivens, A., Rayner, J. C., Minassian, et al
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- **Adaptive T cells regulate disease tolerance in human malaria** *medRxiv*
Bach, F. A., Munoz Sandoval, D., Nahrendorf, W., Ivens, A., Mazurczyk, M., Themistocleous, Y., Silk, S. E., Barrett, J. R., Edwards, N. J., Napolitani, G., Minassian, A. M., Draper, S. J., Spence, et al
2021
- **Repeat controlled human malaria infection of healthy UK adults with blood-stage Plasmodium falciparum: Safety and parasite growth dynamics.** *Frontiers in immunology*
Salkeld, J., Themistocleous, Y., Barrett, J. R., Mitton, C. H., Rawlinson, T. A., Payne, R. O., Hou, M. M., Khozoe, B., Edwards, N. J., Nielsen, C. M., Sandoval, D. M., Bach, F. A., Nahrendorf, et al
2022; 13: 984323
- **Controlled human malaria infection with a clone of Plasmodium vivax with high-quality genome assembly.** *JCI insight*
Minassian, A. M., Themistocleous, Y., Silk, S. E., Barrett, J. R., Kemp, A., Quinkert, D., Nielsen, C. M., Edwards, N. J., Rawlinson, T. A., Ramos Lopez, F., Roobsoong, W., Ellis, K. J., Cho, et al

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- **Senescence in immunity against helminth parasites predicts adult mortality in a wild mammal.** *Science (New York, N.Y.)*
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