



## Daniel Hoces Burga

Postdoctoral Scholar, Biology

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#### HONORS AND AWARDS

- Postdoctoral Fellow, Swiss National Science Foundation (2023)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, ETH Zurich (2022)
- B of Medicine and B of Surgery, Universidad Peruana Cayetano Heredia (2014)
- Master of Science, University of Zurich (2017)

#### STANFORD ADVISORS

- Christopher Barnes, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Directed evolution of LacclID for cell surface proximity labeling and electron microscopy.** *Nature chemical biology*  
Lee, S., Roh, H., Gonzalez-Perez, D., Mackey, M. R., Hoces, D., McLaughlin, C. N., Lin, C., Adams, S. R., Nguyen, K., Kim, K., Luginbuhl, D. J., Luo, L., Udeshi, et al  
2025
- **Investigating Polyreactivity of CD4<sup>+</sup> T Cells to the Intestinal Microbiota** *EUROPEAN JOURNAL OF IMMUNOLOGY*  
Saadawi, A., Mair, F., Rosenwald, E., Hoces, D., Slack, E., Kopf, M.  
2025; 55 (4): e202451484
- **Targeting peptide antigens using a multiallelic MHC I-binding system.** *Nature biotechnology*  
Du, H., Mallik, L., Hwang, D., Sun, Y., Kaku, C., Hoces, D., Sun, S. M., Ghinnagow, R., Carro, S. D., Phan, H. A., Gupta, S., Blackson, W., Lee, et al  
2024
- **A synthetic biology approach to engineering circuits in immune cells.** *Immunological reviews*  
Hoces, D., Miguens Blanco, J., Hernandez-Lopez, R. A.  
2023
- **Fitness advantage of Bacteroides thetaiotaomicron capsular polysaccharide in the mouse gut depends on the resident microbiota** *ELIFE*  
Hoces, D., Greter, G., Arnoldini, M., Staubli, M. L., Moresi, C., Sintsova, A., Berent, S., Kolinko, I., Bansept, F., Woller, A., Hafliger, J., Martens, E., Hardt, et al  
2023; 12
- **"EvoVax" - A rationally designed inactivated Salmonella Typhimurium vaccine induces strong and long-lasting immune responses in pigs.** *Vaccine*  
Lentsch, V., Aslani, S., Echtermann, T., Preet, S., Cappio Barazzone, E., Hoces, D., Moresi, C., Kummerlen, D., Slack, E.

2023; 41 (38): 5545-5552

- **Metabolic reconstitution of germ-free mice by a gnotobiotic microbiota varies over the circadian cycle.** *PLoS biology*  
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2022; 20 (9): e3001743
- **A rationally designed oral vaccine induces immunoglobulin A in the murine gut that directs the evolution of attenuated Salmonella variants.** *Nature microbiology*  
Diard, M., Bakkeren, E., Lentsch, V., Rocker, A., Bekele, N. A., Hoces, D., Aslani, S., Arnoldini, M., Böhi, F., Schumann-Moor, K., Adamcik, J., Piccoli, L., Lanzavecchia, et al  
2021; 6 (7): 830-841
- **High throughput sequencing provides exact genomic locations of inducible prophages and accurate phage-to-host ratios in gut microbial strains** *MICROBIOME*  
Zund, M., Ruscheweyh, H., Field, C. M., Meyer, N., Cuenca, M., Hoces, D., Hardt, W., Sunagawa, S.  
2021; 9 (1): 77
- **Regulatory T cell expansion resolves after effective strongyloidiasis treatment in subjects with HTLV-1 co-infection** *PARASITOLOGY INTERNATIONAL*  
Hoces, D., Barros, N., Woll, F., Bauer, A., Clinton White, A., Montes, M.  
2020; 76: 102092
- **Escherichia coli limits Salmonella Typhimurium infections after diet shifts and fat-mediated microbiota perturbation in mice.** *Nature microbiology*  
Wotzka, S. Y., Kreuzer, M., Maier, L., Arnoldini, M., Nguyen, B. D., Brachmann, A. O., Berthold, D. L., Zünd, M., Hausmann, A., Bakkeren, E., Hoces, D., Gül, E., Beutler, et al  
2019; 4 (12): 2164-2174
- **Growing, evolving and sticking in a flowing environment: understanding IgA interactions with bacteria in the gut** *IMMUNOLOGY*  
Hoces, D., Arnoldini, M., Diard, M., Loverdo, C., Slack, E.  
2020; 159 (1): 52-62
- **Do Memory CD4 T Cells Keep Their Cell-Type Programming: Plasticity versus Fate Commitment? T-Cell Heterogeneity, Plasticity, and Selection in Humans** *COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY*  
Sallusto, F., Cassotta, A., Hoces, D., Foglierini, M., Lanzavecchia, A.  
2018; 10 (3)
- **Missed opportunities for HIV control: Gaps in HIV testing for partners of people living with HIV in Lima, Peru** *PLOS ONE*  
Vasquez, A. L., Errea, R. A., Hoces, D., Echevarria, J., Gonzalez-Lagos, E., Gotuzzo, E.  
2017; 12 (8): e0181412
- **Assessing the HIV Care Continuum in Latin America: progress in clinical retention, cART use and viral suppression** *JOURNAL OF THE INTERNATIONAL AIDS SOCIETY*  
Rebeiro, P. F., Cesar, C., Shepherd, B. E., De Boni, R. B., Cortes, C. P., Rodriguez, F., Belaunzaran-Zamudio, P., Pape, J. W., Padgett, D., Hoces, D., McGowan, C. C., Cahn, P.  
2016; 19: 20636
- **CD4 Response Up to 5 Years After Combination Antiretroviral Therapy in Human Immunodeficiency Virus-Infected Patients in Latin America and the Caribbean** *OPEN FORUM INFECTIOUS DISEASES*  
Luz, P. M., Belaunzaran-Zamudio, P. F., Crabtree-Ramirez, B., Caro-Vega, Y., Hoces, D., Rebeiro, P. F., Blevins, M., Pape, J. W., Cortes, C. P., Padgett, D., Cahn, P., Veloso, V. G., McGowan, et al  
2015; 2 (2): ofv079