

## Rachael Chanin

Postdoctoral Scholar, Hematology

### Bio

---

#### STANFORD ADVISORS

- Ami Bhatt, Postdoctoral Research Mentor
- Ami Bhatt, Postdoctoral Faculty Sponsor

### Publications

---

#### PUBLICATIONS

- **Long-read metagenomics reveals phage dynamics in the human gut microbiome.** *Nature*  
Wirbel, J., Hickey, A. S., Chang, D., Enright, N. J., Dvorak, M., Chanin, R. B., Schmidtke, D. T., Bhatt, A. S.  
2025
- **Clostridium cuniculi is associated with chronic high-morbidity low-mortality diarrhea in NSG and NSG-related mouse strains.** *Veterinary pathology*  
Casey, K. M., Barouch-Bentov, R., Reineking, W., Alonso, F. H., Moorhead, R., Fazel, M., Armien, A. G., Uzal, F. A., Chanin, R. B., Bhatt, A. S., Green, S. L., Felt, S. A., Nagamine, et al  
2025: 3009858251372565
- **Discovering Broader Host Ranges and an IS-bound Prophage Class Through Long-Read Metagenomics.** *bioRxiv : the preprint server for biology*  
Wirbel, J., Hickey, A. S., Chang, D., Enright, N. J., Dvorak, M., Chanin, R. B., Schmidtke, D. T., Bhatt, A. S.  
2025
- **Comprehensive profiling of genomic invertons in defined gut microbial community reveals associations with intestinal colonization and surface adhesion.** *Microbiome*  
Jin, X., Cheng, A. G., Chanin, R. B., Yu, F. B., Dimas, A., Jasper, M., Weakley, A., Yan, J., Bhatt, A. S., Pollard, K. S.  
2025; 13 (1): 71
- **Intragenic DNA inversions expand bacterial coding capacity.** *Nature*  
Chanin, R. B., West, P. T., Wirbel, J., Gill, M. O., Green, G. Z., Park, R. M., Enright, N., Miklos, A. M., Hickey, A. S., Brooks, E. F., Lum, K. K., Cristea, I. M., Bhatt, et al  
2024
- **Formate oxidation in the intestinal mucus layer enhances fitness of Salmonella enterica serovar Typhimurium** *MBIO*  
Winter, M. G., Hughes, E. R., Muramatsu, M. K., Jimenez, A. G., Chanin, R. B., Spiga, L., Gillis, C. C., McClelland, M., Andrews-Polymeris, H., Winter, S. E.  
2023: e0092123
- **Chemoproteomic identification of a DPP4 homolog in Bacteroides thetaiotaomicron.** *Nature chemical biology*  
Keller, L. J., Nguyen, T. H., Liu, L. J., Hurysz, B. M., Lakemeyer, M., Guerra, M., Gelsinger, D. J., Chanin, R., Ngo, N., Lum, K. M., Faucher, F., Ipock, P., Niphakis, et al  
2023
- **Intragenic DNA inversions expand bacterial coding capacity.** *bioRxiv : the preprint server for biology*  
Chanin, R. B., West, P. T., Park, R. M., Wirbel, J., Green, G. Z., Miklos, A. M., Gill, M. O., Hickey, A. S., Brooks, E. F., Bhatt, A. S.  
2023

- **Colonocyte-derived lactate promotes *E. coli* fitness in the context of inflammation-associated gut microbiota dysbiosis.** *Microbiome*  
Taylor, S. J., Winter, M. G., Gillis, C. C., Silva, L. A., Dobbins, A. L., Muramatsu, M. K., Jimenez, A. G., Chanin, R. B., Spiga, L., Llano, E. M., Rojas, V. K., Kim, J., Santos, et al  
2022; 10 (1): 200
- **From genome structure to function: insights into structural variation in microbiology.** *Current opinion in microbiology*  
West, P. T., Chanin, R. B., Bhatt, A. S.  
2022; 69: 102192