Stanford

Deanna Pepin

Postdoctoral Scholar, Pathology

Curriculum Vitae available Online

Bio

BIO

Hey there! I was born in the small town of Selkirk, Manitoba, but lived most of my life in Edmonton, Alberta. I completed my Bachelor of Science at Kings University, focusing on biology and did undergrad research on Pink Pigmented Facultative Methylotrophs - bacteria that degrade petrochemicals. Following graduation, I became a Research Technician with Exciton Technologies Inc., a research and development company producing silver-based wound care products for treating infections. In 2016, I joined Dr. Benjamin Willing's lab in Agriculture, Food, and Nutritional Sciences at the University of Alberta and completed a Master of Science focusing on how certain husbandry changes impact the development of the gastrointestinal microbiota, Salmonella infection resistance, and immune response in broiler production. In 2024, I completed my PhD in the department of Microbiology & Immunology at UBC, working with Dr. Carolina Tropini to understand the impact of osmotic stress on the gut microbiome.

INSTITUTE AFFILIATIONS

- Member, Maternal & Child Health Research Institute (MCHRI)

STANFORD ADVISORS

- Maayan Levy, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **PUPpy: a primer design pipeline for substrain-level microbial detection and absolute quantification.** *mSphere*
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- **Single-strain behavior predicts responses to environmental pH and osmolality in the gut microbiota.** *mBio*
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- **The Gut Commensal Escherichia coli Aggravates High-Fat-Diet-Induced Obesity and Insulin Resistance in Mice.** *Applied and environmental microbiology*
  Ju, T., Bourrie, B. C., Forgie, A. J., Pepin, D. M., Tollenaar, S., Sergi, C. M., Willing, B. P.
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- **Over supplementation with vitamin B12 alters microbe-host interactions in the gut leading to accelerated Citrobacter rodentium colonization and pathogenesis in mice.** *Microbiome*
  Forgie, A. J., Pepin, D. M., Ju, T., Tollenaar, S., Sergi, C. M., Gruenheid, S., Willing, B. P.
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- **Cause or effect? The spatial organization of pathogens and the gut microbiota in disease.** *Microbes and infection*
  Nguyen, J., Pepin, D. M., Tropini, C.
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- **Pea polyphenolics and hydrolysis processing alter microbial community structure and early pathogen colonization in mice.** *The Journal of nutritional biochemistry*
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- **Bacterial resistance to antibiotic alternatives: a wolf in sheep's clothing?** *Animal frontiers : the review magazine of animal agriculture*
  Willing, B. P., Pepin, D. M., Marcolla, C. S., Forgie, A. J., Diether, N. E., Bourrie, B. C.
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- **Targeting biofilms of multidrug-resistant bacteria with silver oxynitrate.** *International journal of antimicrobial agents*
  Kalan, L. R., Pepin, D. M., Ul-Haq, I., Miller, S. B., Hay, M. E., Precht, R. J.
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