



Postdoctoral Position Pathogenesis of *Cryptococcus neoformans*

Description: The Kronstad Laboratory at the University of British Columbia, Vancouver has an opening for a postdoctoral scientist to investigate aspects of nutrient sensing and acquisition, and virulence factor elaboration, in the fungal pathogen *Cryptococcus neoformans*. Core research projects in the group focus on: 1) iron and heme as key regulatory signals and nutrients during infection of mammalian hosts; 2) the intersection between mitochondrial functions and virulence; 3) intracellular trafficking of nutrients and virulence-related materials and; 4) interactions between bacteria and *C. neoformans*. The following publications illustrate ongoing studies:

1. Attarian R et al. 2018. The monothiol glutaredoxin Grx4 regulates iron homeostasis and virulence in *Cryptococcus neoformans*. *mBio*. 9(6). Pii: e02377-18.
2. Caza M et al. 2018. The vacuolar sorting protein Vps45 links iron uptake, mitochondrial function and virulence in the pathogenic fungus *Cryptococcus neoformans*. *PLoS Pathogens*. 14(8):e1007220.
3. Horianopoulos LC et al. 2020. The Novel J-Domain Protein Mrj1 Is Required for Mitochondrial Respiration and Virulence in *Cryptococcus neoformans*. *mBio*. 11(3):e01127-20.
4. Bairwa G, Sánchez-León E, Do E, Jung WH, Kronstad JW. 2020. A Cytoplasmic Heme Sensor Illuminates the Impacts of Mitochondrial and Vacuolar Functions and Oxidative Stress on Heme-Iron Homeostasis in *Cryptococcus neoformans*. *mBio*. 11(4):e00986-20.

Application deadline: Open until filled

Position available: October 1, 2020

Applicant qualifications: Applicants should hold a Ph.D. in Microbiology, Biochemistry, Cellular or Molecular Biology or a related field. Strong written and verbal communication skills are essential, as is a track record of research productivity demonstrated by publications. Expertise in one or more of the following skills will be important: molecular genetic manipulation of fungi (or microbes more generally), mouse models of infection, fluorescent microscopy, computational biology, proteomics, or biochemical analyses.

How to apply: Please send the following documents to Dr. Jim Kronstad at kronstad@mssl.ubc.ca: Cover letter and a complete CV with contact information for at least three referees.

The Kronstad Laboratory is located in the Michael Smith Laboratories, a multidisciplinary research institute at the University of British Columbia in Vancouver, Canada. The research group, institute and university are strongly committed to Equity, Diversity and Inclusion. Current funding comes from the National Institute of Allergy and Infectious Diseases, the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Canadian Institute for Advanced Research (Fungal Kingdom: Threats and Opportunities).

More information can be found at the following sites: <https://kronstadlab.mssl.ubc.ca>
<https://www.mssl.ubc.ca> <https://www.ubc.ca/about/> <https://www.tourismvancouver.com>