



BRIGHAM
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HOSPITAL



HARVARD
MEDICAL
SCHOOL

Post-doctoral Fellowship – Bacteriology and Infectious Disease

Brigham and Women's Hospital
Harvard Medical School, Boston, MA, USA

D. Branch Moody's laboratory offers an NIH-supported Research Fellowship in Bacteriology and Immunology with a focus on discovery of molecules and genes that promote virulence and host response to *M. tuberculosis* and other pathogenic bacteria. Successful applicants with an PhD or MD degree will join a collaborative, discovery-focused team working in a modern scientific laboratory, where they will receive appointments at the Brigham and Women's Hospital and Harvard Medical School.

We offer high quality training in cell biology, immunology, bacteriology, chemical biology, and scientific communication. Research projects emphasize whole-organism genetic and metabolic screens to discover virulence factors and the biologically dominant molecules that trigger host response. NIH grants support the full-time salaried position that includes a competitive benefits package and visa application support. Interested applicants can learn more about the scientific focus of research by reading publications listed on the reverse side or in pubmed.

We offer career development through the Division of Rheumatology, Inflammation and Immunology, along with scientific programs in the Committee for Immunology at Harvard Medical School. Please apply by sending a statement of interest and CV to bmoody@bwh.harvard.edu.

Recent Relevant Publications

Nair YM, Menon AR, Lin Z, Vossenberg MRL, Munsamy-Govender V, Young DC, Xet-Mull AM, Babunovic GH, Cheng TY, Raman S, Rhee KY, Rock JM, de Jong A, Minnaard AJ, Mayfield JA, Tobin DM, Moody DB. Mapping unsolved lipidomes accelerates lipid discovery in major bacterial pathogens. *bioRxiv* 2025.

Mayfield JA, Raman S, Ramnarine AK, Mishra VK, Huang AD, Dudoit S, Buter J, Cheng TY, Young DC, Nair YM, Ouellet IG, Griebel BT, Ma S, Sherman DR, Mallet L, Rhee KY, Minnaard AJ, Branch Moody D. 2024. Mycobacteria that cause tuberculosis have retained ancestrally acquired genes for the biosynthesis of chemically diverse terpene nucleosides. *PLoS Biol* 22: e3002813

Guzman LE, Cambier CJ, Cheng TY, Naqvi KF, Shiloh MU, Moody DB, Bertozzi CR. 2024. Bioorthogonal Metabolic Labeling of the Virulence Factor Phenolic Glycolipid in Mycobacteria. *ACS Chem Biol* 19: 707-17

Bedard M, van der Niet S, Bernard EM, Babunovic GH, Cheng TY, Aylan B, Grootemaat AE, Raman S, Botella L, Ishikawa E, O'Sullivan MP, O'Leary S, Mayfield JA, Buter J, Minnaard AJ, Fortune SM, Murphy LO, Ory DS, Keane J, Yamasaki S, Gutierrez MG, van der Wel N, Moody DB. A terpene nucleoside from Mtb induces lysosomal lipid storage in foamy macrophages. *J Clin Invest*, 2023.

Huang S, Shahine A, Cheng TY, Chen YL, Ng SW, Balaji GR, Farquhar R, Gras S, Hardman CS, Altman JD, Tahiri N, Minnaard AJ, Ogg GS, Mayfield JA, Rossjohn J, Moody DB. 2023. CD1 lipidomes reveal lipid-binding motifs and size-based antigen-display mechanisms. *Cell* 186: 4583-96.

Reinink P, Buter J, Mishra VK, Ishikawa E, Cheng TY, Willemsen PTJ, Porwollik S, Brennan PJ, Heinz E, Mayfield JA, Dougan G, van Els CA, Cerundolo V, Napolitani G, Yamasaki S, Minnaard AJ, McClelland M, Moody DB, Van Rhijn I. 2019. Discovery of Salmonella trehalose phospholipids reveals functional convergence with mycobacteria. *J Exp Med* 216: 757-71