

REFERENCES

1. Organization WH. 2021. Global Tuberculosis Report 2021.
2. Rodriguez GM. 2006. Control of iron metabolism in *Mycobacterium tuberculosis*. Trends in Microbiology 14:320-327.
3. Mitra A, Speer A, Lin K, Eht S, Niederweis M. 2017. PPE Surface Proteins Are Required for Heme Utilization by *Mycobacterium tuberculosis*. MBio 8.
4. Huang W, Wilks A. 2017. Extracellular Heme Uptake and the Challenge of Bacterial Cell Membranes. Annu Rev Biochem doi:10.1146/annurev-biochem-060815-014214.
5. Hoffmann C, Leis A, Niederweis M, Plitzko JM, Engelhardt H. 2008. Disclosure of the mycobacterial outer membrane: cryo-electron tomography and vitreous sections reveal the lipid bilayer structure. Proc Natl Acad Sci U S A 105:3963-7.
6. Dulberger CL, Rubin EJ, Boutte CC. 2020. The mycobacterial cell envelope - a moving target. Nat Rev Microbiol 18:47-59.
7. Korycka-Machala M, Pawelczyk J, Borowka P, Dziadek B, Brzostek A, Kawka M, Bekier A, Rykowski S, Olejniczak AB, Strapagiel D, Witczak Z, Dziadek J. 2020. PPE51 Is Involved in the Uptake of Disaccharides by *Mycobacterium tuberculosis*. Cells 9.
8. Wang Q, Boshoff HIM, Harrison JR, Ray PC, Green SR, Wyatt PG, Barry CE, 3rd. 2020. PE/PPE proteins mediate nutrient transport across the outer membrane of *Mycobacterium tuberculosis*. Science 367:1147-1151.

Figures to support GUP3 application

