Supplementary Information

Host bioenergetic parameters reveal cytotoxicity of anti-TB drugs undetected using conventional viability assays.

Bridgette M. Cumming¹, Zainab Baig¹, Kelvin W. Addicott¹, Dongquan Chen², Adrie J.C. Steyn¹,³,⁴

¹Africa Health Research Institute, University of KwaZulu-Natal, Durban, KwaZulu-Natal, South Africa
²Division of Preventive Medicine and Comprehensive Cancer Center. University of Alabama at Birmingham, Birmingham, AL, USA
³Department of Microbiology, University of Alabama at Birmingham, AL, USA
⁴Centers for AIDS Research and for Free Radical Biology, University of Alabama at Birmingham, Birmingham, AL, USA
Figure S1: CMST and ECAR profiles and bioenergetic parameters of cells treated with MXF at increasing MIC. (A) CMST and (B) ECAR profiles of HepG2, THP-1 and hMDM cells, respectively, treated with increasing MIC of MXF. The profiles were used to calculate the indicated bioenergetic parameters of the (C) HepG2, (D) THP-1, and (E) hMDM cells, respectively. Monocytes isolated from the buffy coats of three donors were mixed and used for each experiment (n = 1).
Figure S2: Comparison of line plots of the bioenergetic parameters of anti-TB drug-treated cells relative to untreated cells with that of the MTT %Viability of the same cells. The line plots demonstrate that the relative bioenergetic parameters of HepG2, THP-1 and hMDM cells treated with increasing MIC of (A) STR, (B) PZA, (C) EMB, (D) MXF, (E) CFZ, (F) BDQ and (G) LZD indicate a broader range of effects of the drugs than %Viability alone.
Figure S3. Structures of anti-TB drugs