## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: **Kinase predictions at various values of alpha:** All kinases assessed using multivariate regression and their predicted coefficients at various alpha values between 0.1 and 1.0. Kinases

described in the paper were chosen at alpha=0.8

File Name: Supplementary Data 1

Description: **Predicted efficacies of untested kinase inhibitors:** Elastic net predictions of residual LS burden in response to complete set of kinase inhibitors with publically available activity profiles. Predicted LS burden is reported as percent of non- (206) 256-7200 cidresearch.org 307 Westlake Ave North, Suite 500 Seattle, WA 98109 treated control. Kinase inhibitors are sorted from highest to lowest predicted efficacy against LS Plasmodium yoelii infection.