

**Supplemental Figure II.** (a) Residuals (the difference between model predictions and observed data) from the curvilinear model shown as a function of the predicted decrease. Residuals for this model are also shown on the right as a function of test altitude (b) and baseline  $VO_{2max}$  (c). For all of the regression models, there was no evidence of a relationship between residual errors and altitude or between residual errors and baseline  $VO_{2max}$ , suggesting that the models were not biased in their predictions at different levels of the predictors.

