Supporting Information

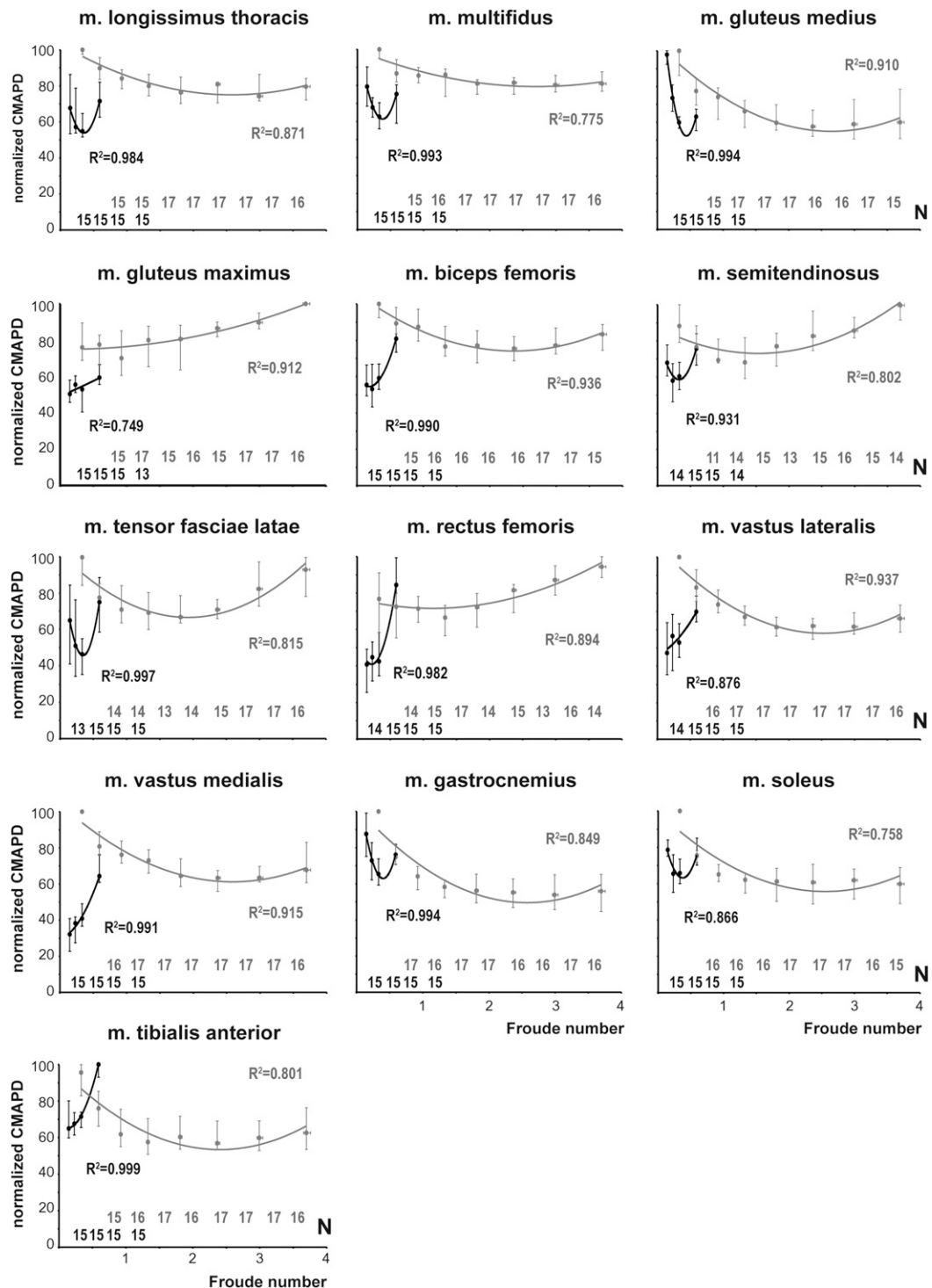## Carrier et al. 10.1073/pnas.1105277108

Fig. S1. Median values of normalized cumulative muscular activity per distance (CMAPD) versus walking (black) and running (gray) speeds (Froude number) for each of the 13 muscles. Lines fitted to the data were derived from second-order polynomial least-squares regressions. Note that these regressions were fit to the median values of all of the subjects. Speed has been normalized for limb length of the subjects using Froude number. Error bars represent the upper and lower quartiles. Note that horizontal error bars (upper and lower quartiles) are illustrated, but in many cases do not extend beyond the median symbol. Sample sizes at each speed are listed along the *x* axes. Squared R values (coefficients of determination) are given in each case.
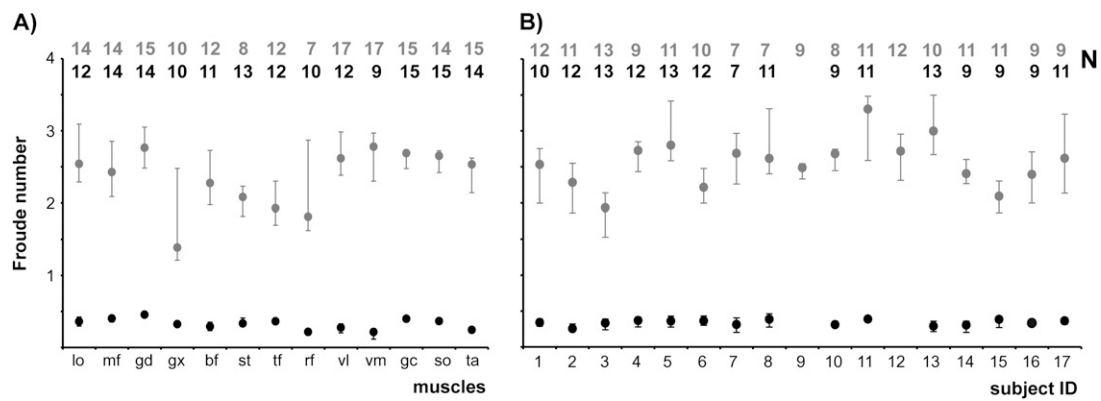
Fig. S2. Median optimal walking (black) and running (gray) speeds for the 13 muscles (*A*) and the 17 subjects (*B*). Note that the medians were calculated from independently derived optima for each muscle (*A*) and the average optimal value of all of the muscles for each subject (*B*). Error bars represent the upper and lower quartiles of speed. Muscle name abbreviations are given in Table 2. Sample sizes at each speed are listed at the top of the graphs.