Supplementary Figure Legends

Figure Supp1. Mechanical models fit to experimental gain and phase data. A single subject's experimental data was fit by models of varying complexity (**A→E**) by varying model parameter values. Resonant frequencies are marked with vertical lines. The best fit was defined as the parameter set which produced the smallest normalized residual error.

Figure Supp2. Effect of the force-length relationship on the simple model.(**A**) For a constant muscle activity level, model muscle length influences muscle force. Varying muscle activity would shift the illustrated curves upward or downward on the vertical axis. By varying the parallel spring stiffness, we enforced force-length relationships from various points on the physiological curve. (**B**) Changes in the force-length relationship had a minimal effect on the calculated resonant frequency.

Figure Supp3. Effect of the force-velocity relationship on the simple model.(**A**) For a constant muscle activity level, muscle velocity influences muscle force. By varying the parallel damping, we enforced a range of force-velocity relationships. (**B**) Large changes in the force-velocity relationship had a relatively minor effect on the calculated resonant frequency.