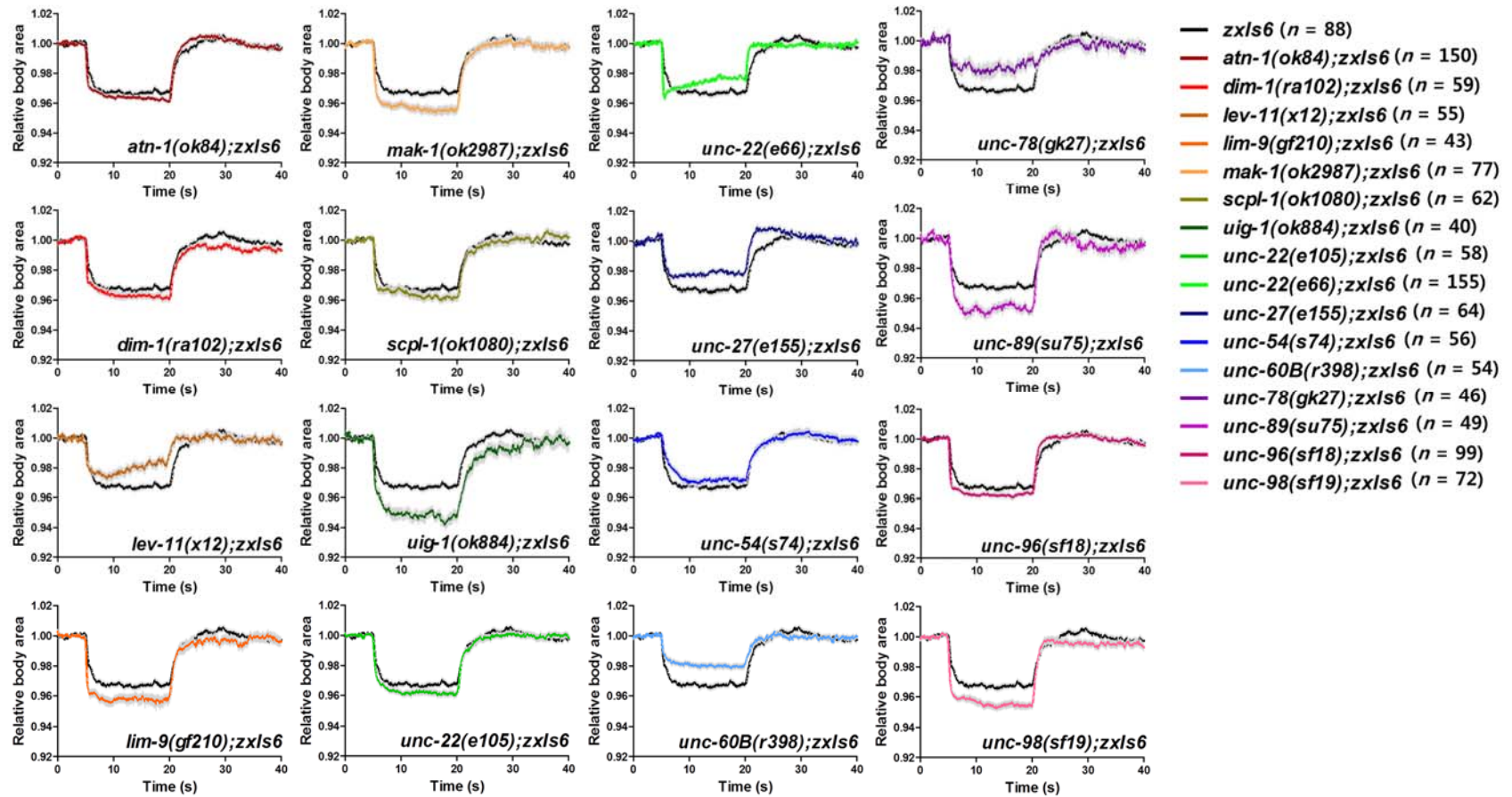


Supplementary Information

Behavioral phenotypic analysis enabled by optogenetics reveals functional relationships of sarcomere components in *Caenorhabditis elegans*

Hyundoo Hwang¹, Dawn E. Barnes², Yohei Matsunaga², Guy M. Benian², Shoichiro Ono², Hang Lu^{1,3,4}

¹*School of Chemical & Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA, USA,* ²*Department of Pathology, Emory University, Atlanta, GA, USA,* ³*Interdisciplinary Program of Bioengineering, Georgia Institute of Technology, Atlanta, GA, USA,* ⁴*The Petit Institute for Bioengineering and Biosciences, Georgia Institute of Technology, Atlanta, GA, USA.*



Supplementary Figure 1 | Body size changes of the *C. elegans* sarcomere mutant strains due to the optogenetically-induced muscle contraction. All the data are plotted in comparison with the wild-type (black solid line). Blue light was illuminated 5 s after starting the experiments for 15 s, and the body sizes were normalized by the average values of the first 5 s of each measurement. Data represent mean \pm s.e.m. $n \geq 40$.