

Fig. S1. Examples of shuttle-GFP reporter distribution in human primary myoblasts that also had BacMam-mediated DUX4-FL-V5 expression. Higher shuttle-GFP fluorescence intensity in the nucleus than in the cytoplasm was the most frequently observed pattern (i.e., observer scores 4 or 5). Less frequently observed patterns included approximately equal nuclear and cytoplasmic fluorescence (observer score = 3 ) and higher cytoplasmic than nuclear fluorescence (observer score = 2). In the ma text, see Materials and Methods for the observer scoring system and Fig. 1 for quantitation of all results. Bar=15 $\mu \mathrm{M}$.


Fig. S2. Examples of shuttle-GFP reporter distribution in Bax-/-;Bak-/- (double knockout) SV40-immortalized mouse embryonic fibroblasts (MEFs) in the presence and absence of BacMam-mediated DUX4-FL-V5 expression. As noted in the text, MEFs had little cytoplasm and shuttle-GFP fluorescence was high in all nuclei with or without DUX4-FL expression. Similar results were seen with wild-type MEFs. ShuttleGFP fluorescence in nuclei did not appear to be decreased by DUX4-FL expression, but, as discussed in the text, the unfavorable cell morphology and high nuclear accumulation of the reporter in the absence of DUX4 made it impossible to determine if DUX4-FL expression led to additional accumulation of shuttle-GFP beyond the high level already found in DUX4-negative MEFs. Bar=15 $\mu \mathrm{M}$.

