SUPPLEMENTARY MATERIAL

mRNA cycles through hypoxia-induced stress granules in live Drosophila embryonic muscles

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Supplementary Fig. S1. Formation of large stress granules (SGs) is the result of a response to hypoxia combined with a relatively high temperature. dFMR1 protein and reporter mRNA localization under normoxic conditions at 29°C, hypoxic conditions at 25°C and hypoxic conditions at 29°C. As shown in Fig. 2, in contrast to normoxia at 29°C (A-C), hypoxia at 29°C gives rise to the formation of large dFMR1-positive SGs (G-I) which in general colocalize with the GFP mRNA (arrows). Hypoxia at 25°C (D-F) results in the loss of the large colocalizing SGs but smaller granules remain. In general no colocalization between dFMR1 and GFP mRNA could be determined. Hollow arrow shows granule only positive for dFMR1. Arrowheads indicate the DNA integration site of the mRNA. Nuclei are stained with Hoechst (blue). Scale bar, 4 μm.