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**SUPPLEMENTARY MATERIAL**

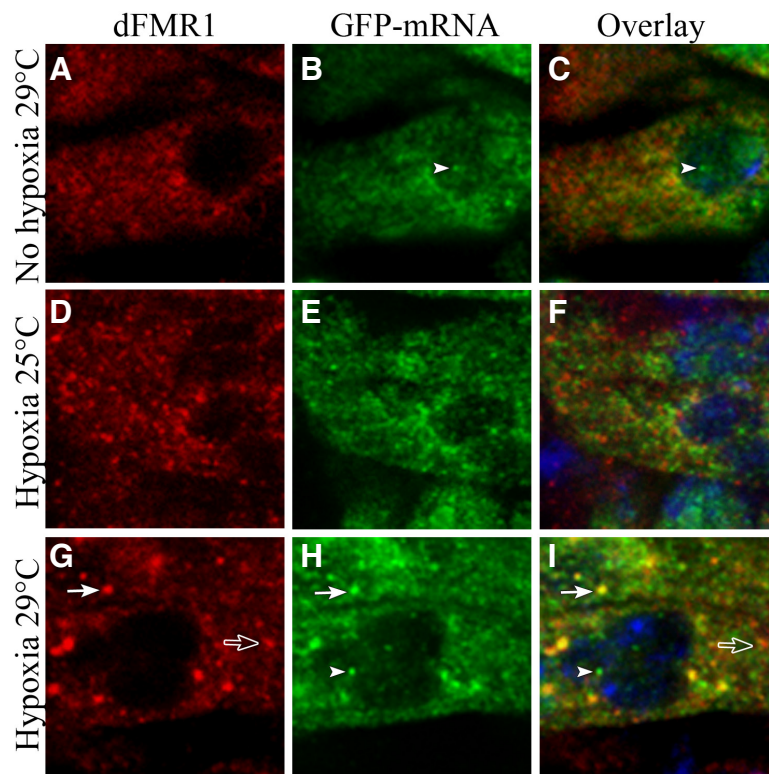
**corresponding to:**

**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  $\mu$ m.