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Investigation of the biological role of miR-252

MicroRNAs (miRNAs) are a class of small endogenous non-protein-coding RNAs that negatively regulate protein translation. Recent scientific advances have revealed that miRNAs are involved in multiple biological processes, including stem cell proliferation, organ development and numerous signaling pathways. They also respond to biotic and abiotic environmental stresses. One of the stress responsive miRNA that was found in a screen in *D. melanogaster* is *miR-252*, which is additionally Dystrophin and/or Dystroglycan dependant. I found that *miR-252* is expressed in neuroblasts, neurons and glial cells. Additionally, I show a possible way to regulate *miR-252* expression by NO-signaling in *D. melanogaster*. This study defines *miR-252* as a novel stress responsive neuronal miRNA.