

P026 mRNA localization in stress-induced mRNP granules
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In the yeast *Saccharomyces cerevisiae*, starvation for glucose causes a severe reduction in protein synthesis rates and the induction of cytoplasmic mRNA granules known as P-bodies. Translational control is closely associated with accumulation of cytoplasmic mRNA granules, which serve key functions in the control of mRNA fate in eukaryotic cells.

Here it is shown that depletion of glucose causes the key translational mediators of mRNA recognition- eIF4E, eIF4G and Pab1p- to resediment away from ribosomal fractions. Strikingly, these factors accumulate both in P-bodies and in previously unrecognised cytoplasmic bodies, which we define as EGP-bodies. An absence of key mRNA decay factors in EGP-bodies is consistent with an mRNA storage function. We investigate the residency of mRNA sub-populations across these species of cytoplasmic mRNP granule, and aim to establish the consequences of predominately localising to one granular species over another.