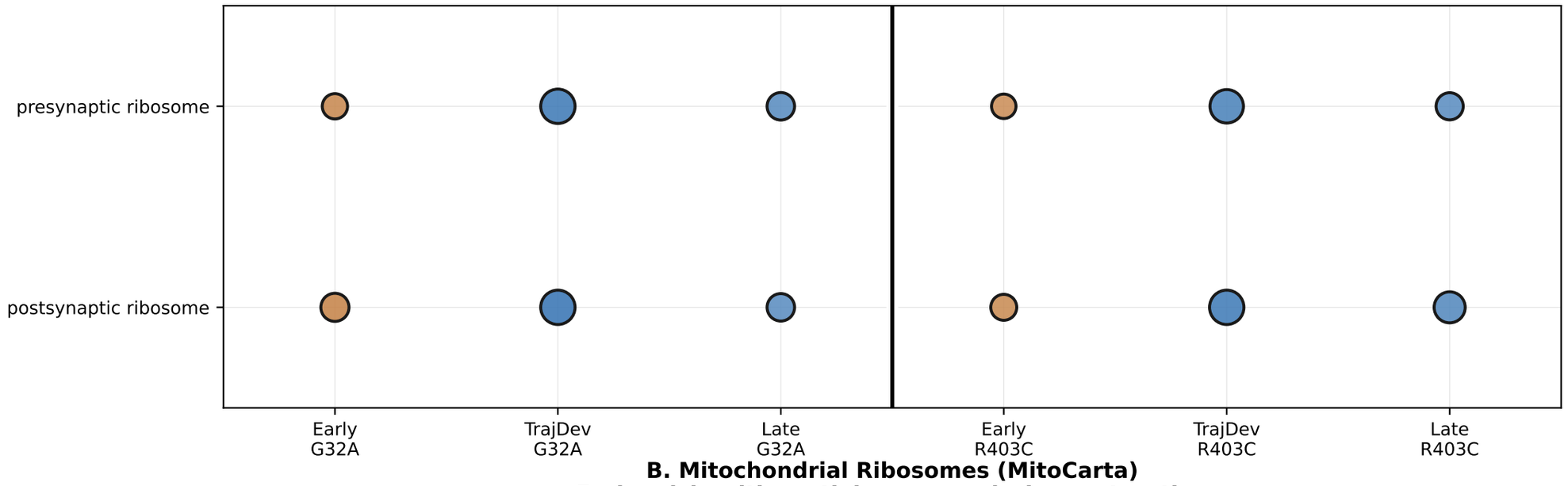
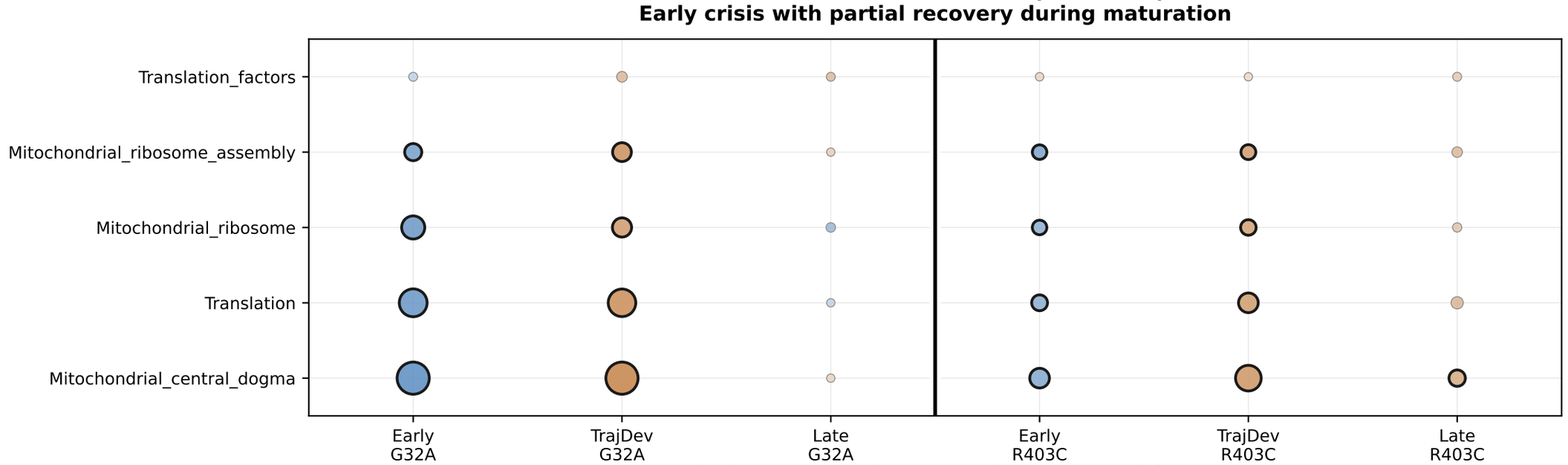
The Ribosome Paradox: Opposite Fates of Translation Machineries (Dotplot)

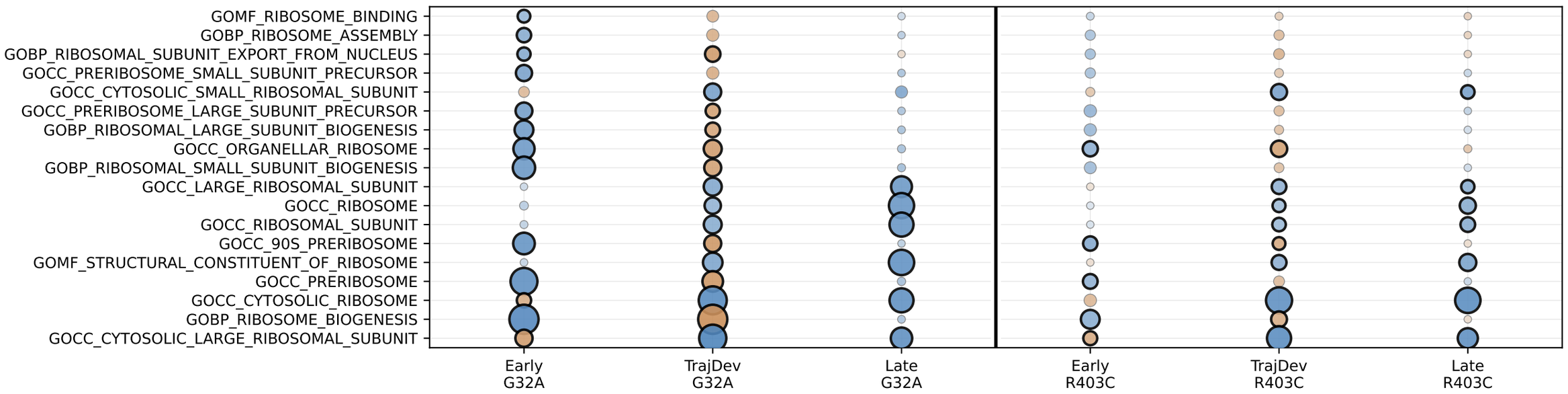
A. Synaptic Ribosomes (SynGO)
Early compensatory upregulation fails during maturation

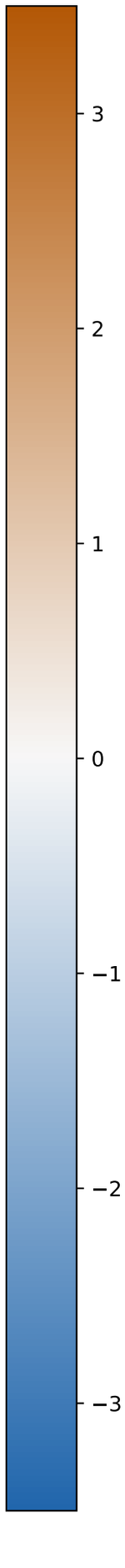


B. Mitochondrial Ribosomes (MitoCarta)
Early crisis with partial recovery during maturation

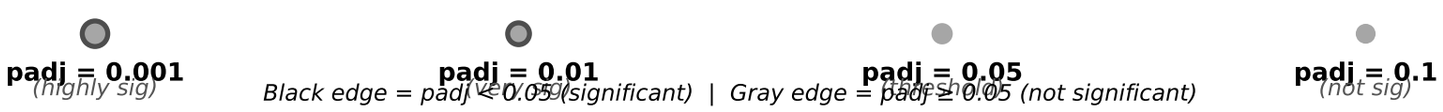


C. Cytoplasmic Ribosome Biogenesis (GO)
Broader ribosome biogenesis context





Dot Size Legend: Larger dots = more significant (lower padj)



Black edge = padj < 0.05 (significant) | Gray edge = padj ≥ 0.05 (not significant)

The Ribosome Paradox:
A) Synaptic ribosomes show early UP (compensation attempt) → late DOWN (failure)
B) Mitochondrial ribosomes show early DOWN (crisis) → late UP (recovery)
C) Cytoplasmic ribosome biogenesis provides context for compensatory responses