

Joan Wilson Thesis Defense

cytoplasmic determinants -

- mRNA localization
 - protein translation
- } regulated to cause differences w/in embryo

oskar

- can be *increased* in dosage by P-element transformation (6X)
- overexpression leads to bicaudal
- this depends on *nanos*

new genes

- can suppress bicaudal phenotype of *osk* 6X by reducing expression of other genes
 - ∴ can pull out more mutants ??
 - isolated multiple suppressors
 - some were previously known genes
 - many others
 - characterized two
 - aubergine -- (prev. known to be involved in dorsoventral patterning)
 - bullwinkle
- can also suppress an *OB1* line (with similar bicaudal phenotype)

aubergine

- specifically defective in *osk* mRNA localization ^{posterior}

bullwinkle

- req'd for *osk* mRNA localization
- mutants have ↑ *osk* protein