

P011 Post-transcriptional regulation of the paternal patterning cue *SHORT SUSPENSOR*

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In *Arabidopsis thaliana*, the fertilized egg cell or zygote elongates approximately three-fold before it divides asymmetrically. The two daughter cells differ in size and follow different developmental routes.

While the smaller apical cells forms the spherical embryo proper, the cells of the basal lineage continue to divide horizontally to form the stalk-like suspensor.

Zygote elongation and suspensor formation is regulated by a MAP kinase pathway including the MAPKK kinase YODA (YDA). The YDA pathway is activated in the zygote by the membrane-associated receptor-like cytoplasmic kinase *SHORT SUSPENSOR* (SSP).

SSP expression is regulated by an intriguing mechanism: *SSP* transcripts accumulate specifically in sperm cells, while the *SSP* protein can only be detected transiently after fertilization. This suggests that *SSP* transcripts are inherited during the fertilization events and are then translated into protein in the zygote.

We will present our latest findings on the mechanism of this unusual regulation and will try to put these into an evolutionary and developmental perspective.