

S007 Genetic control of identity, growth and shape in the
Arabidopsis embryo
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Both growth and tissue patterning are processes that occur continuously during plant life. A key question is how these are coordinated in space and time to generate plant shape and function. We use the early *Arabidopsis* embryo as a simple and highly predictable model in which cell identity specification, growth and patterning are intricately coordinated. I will discuss our recent work aimed at understanding the cellular basis for the establishment of multicellular patterns in 3D, as well as its genetic control. I will describe a genetic network that integrates auxin and cytokinin activity to drive the initiation of the first vascular tissue precursors, and transforms a small uniform procambial cell population into a growing, patterned bi-symmetric vascular bundle.