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Cover: Unlike the lower sea urchin embryo (FoxA knockdown), the upper control embryo has a mouth, a normal number of pigment cells and a complete gut. The FoxA transcription factor in the sea urchin is necessary for mouth formation, endoderm repression of mesoderm and, later, for gut specification. See article by Oliveri et al. on p. 4173.

Cilia have crucial roles in cell signalling and cellular homeostasis, and, as such, their functions can profoundly affect developmental patterning and organ physiology. As reviewed by Brent Bisgrove and Joseph Yost, studies of cilia dysfunction in human disease and vertebrate development are yielding new insights into the molecular pathways that intersect with cilia function and formation. See review on p. 4131.
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