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Context-dependent ciliary regulation of hedgehog pathway repression in tissue morphogenesis

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Distinct modes of morphogenetic regulation by primary cilia

Studying complexities in utilization of GLI-effectors point to the tissue-specific regulation of hedgehog pathway repression by primary cilia. Here skeletal stained embryos that are wild-type (top left), conditional knockout for *Gpr161* (bottom left), and conditional knockout for *Gpr161* and lacking *Gli2* (top right) or expressing *Gli3* repressor (bottom right) are shown. These embryos depict the distinct modes by which the cilia generated GLI effectors regulate morpho-phenotypic outcomes from lack of hedgehog pathway repression.

Image credit: Sun-hee Hwang and Saikat Mukhopadhyay