

## **Building and rebuilding regulatory feedback loops**

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Tight control of intercellular signaling by regulatory feedback mechanisms is key for proper growth and patterning of tissues and organs. I will present our recent efforts towards identifying feedback regulators in *Drosophila* BMP morphogen signaling and analyzing their impact in graded signaling. I will discuss how such mechanisms contribute to the establishment and maintenance of graded signaling and how they equip the system with robustness and scaling properties. Moreover, I will present an example of how tissue-specific cues rewire regulatory feedback networks to impact on the shape of morphogen gradients and, ultimately, on the shape and function of organs.