

Distinguished Lecture Series in Physiology

Physiology and Membrane Biology

University of California, Davis



Thomas Kornberg, Ph.D.

University of California, San Francisco
Department of Biochemistry and Biophysics

“Signaling at a distance: communicating by touch”

Development creates a vast array of forms and patterns with elegant economy, using a small vocabulary of pattern-generating proteins such as BMPs, FGFs, EGFs, Wnts, and Hhs in similar ways in many different contexts. Much theoretical and experimental work has investigated the mechanisms that disperse these morphogen signaling proteins, and there is now strong evidence that establishes a fundamental and essential role for cytonemes – specialized filopodia that make functional connections between signaling cells and that transport signaling proteins from producing to receiving cells. Cytoneme-mediated signaling is a dispersal mechanism that delivers signaling proteins directly at sites of cell-cell contact.

Genome Auditorium
Wednesday, February 22, 2017
4:10 p.m.