



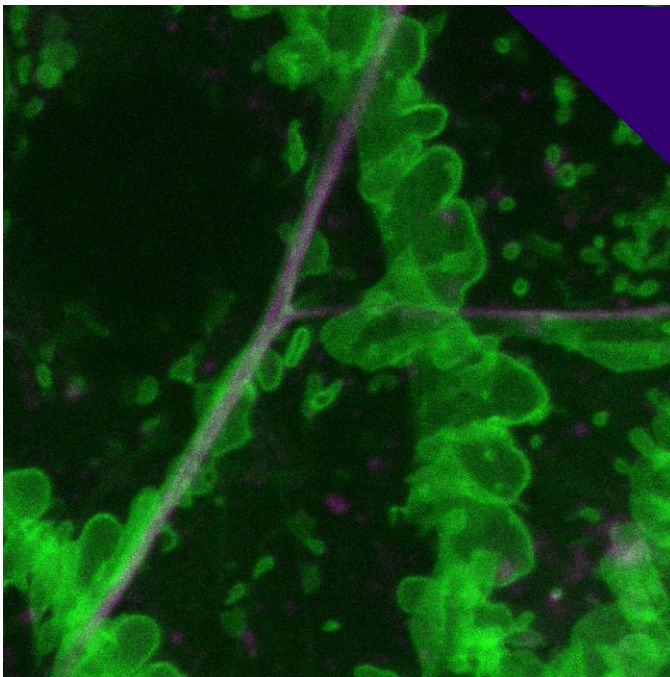
# Biology Seminar

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## Skin cell control of somatosensation in *Drosophila melanogaster*



Monday, November 15, 2021

12:00pm PST

An animal's skin provides a durable barrier to environmental insults, but also serves as a substrate for somatosensory neurons and a first point of contact with the sensory world. Indeed, many types of cutaneous receptors form specialized terminal structures within the skin that contribute to somatosensation, and recent studies have begun to define primary sensory functions for skin cells.

However, we have only a rudimentary understanding of how skin cells actively shape responses to noxious (painful), which is especially problematic given the adverse influence of pain on quality of life: current estimates suggest that one in three individuals will suffer from chronic pain, and this prevalence continues to grow as the global population ages. To address this gap in our knowledge my laboratory uses the genetically tractable fruit fly *Drosophila* to identify epidermal modulators of nociceptive neuron function. In this seminar, I will discuss our recent progress in identification of evolutionarily conserved mechanisms that structurally and functionally couple epidermal cells to nociceptive neurons to shape animal responses to painful stimuli.

