

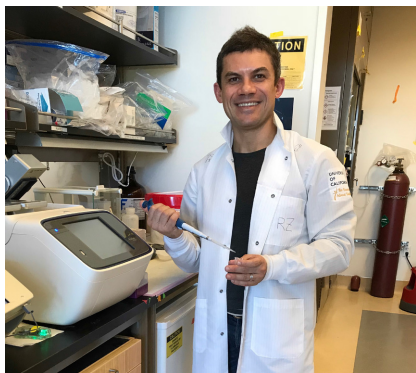
BIOLOGY SEMINAR

Biology Graduate Student Association and Department of Biological Sciences



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FRIDAY, APR. 26 @ 4 PM

SCI B 133



Dissecting and Deciphering Lysosome-Based Nutrient Sensing

How do the nutrients we consume regulate our growth and homeostasis? Answering this question will help us understand not only how we develop, but also how we age and why we become susceptible to diseases as diverse as cancer, diabetes and neurodegeneration. We focus on the lysosome as our model system. Using advanced live cell microscopy, in vitro biochemical assays, and high throughput protein and metabolite profiling, we are discovering wonderful new properties of this organelle, which has traditionally been viewed as a metabolic end-point. Instead, the lysosome is emerging as a key signaling node, which relays nutrient availability to important signaling molecules such as the master growth regulatory kinase, mechanistic Target of Rapamycin Complex 1 (mTORC1). We are investigating the lysosome as a metabolic 'command and control' center that i) functions as a signaling hub for nutrient sensing and signaling and ii) controls the storage and delivery of key substrates to the cell's metabolic pathways. Exploring these exciting directions, will ultimately increase our understanding of metabolic function both in normal and disease states.

Biological Sciences Seminar Series venue is wheelchair-accessible. Persons who wish to request disability-related accommodations, including sign-language interpreters, should contact the Department of Biological Sciences, c/o mtr57@humboldt.edu. Please request accommodations at least two days prior to the event. Some attendees may be sensitive to various scents from perfumes, shampoos, soaps, etc. Although optional, please consider refraining from wearing scented products to this event.