

QUANTITATIVE & SYSTEMS BIOLOGY COLLOQUIUM: Regulation of fly feeding behavior

William Ja

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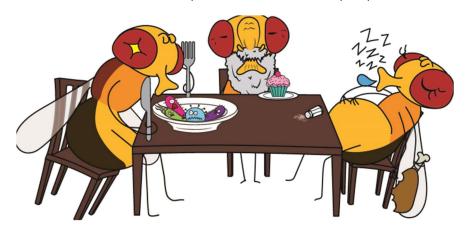
<u>Date:</u> 12/2/2022

<u>Time:</u> 2:30 PM - 3:45 PM

Location: COB2 140

About The Speaker:

Dr. William Ja is an Associate Professor in the Department of Neuroscience at UF Scripps Biomedical Research in Jupiter, Florida. The Ja lab's current research interests include aging and dietary restriction, the neurobiology of feeding and nutrition, and the effects of symbiotic bacteria on host physiology and metabolism. Ja received his undergraduate degree in chemistry from UC Berkeley, working with Richard Mathies and Alex Glazer on DNA sequencing technologies. His doctoral work with Rich Roberts at the California Institute of Technology focused on using mRNA display to identify modulators of G protein signaling. Ja remained at Caltech to work with Seymour Benzer on developing longevity "drugs" for Drosophila. In addition to his scientific work, Ja has served as an assistant coach for Caltech's NCAA D-III women's volleyball team and Jupiter High School's varsity boys' team, as well as head coach of Pasadena Polytechnic School's varsity boys' team.



Abstract:

The Ja lab uses Drosophila melanogaster as a model for dissecting the genetic and neural mechanisms of aging, behavior, and disease. Recently developed tools allow us to quantify fly food intake with unparalleled resolution. These tools complement existing methods for studying feeding behavior that we have used to:
1) investigate how the evaluation of food quality regulates caloric intake; 2) dissect the neurobiology of prandial behavior, including meal size control; and 3) identify the leucokinin system as a key regulator of postprandial sleep. Our studies may reveal the basic, and conserved, strategies that animals use to regulate feeding and inform novel approaches aimed at modifying ingestive behavior.