

Biology Seminar

By: Dr. Young Kwon

University of Washington | Assistant Professor, Department of Biochemistry https://depts.washington.edu/biowww/pages/faculty-Kwon.shtml

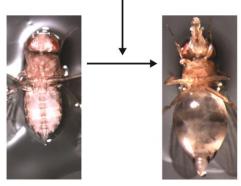
Cachexia-like wasting in drosophila

Intestine Activation of Yorkie



Localized cell over-proliferation

ImpL2 (secreted insulin/IGF antagonist)



Systemic organ wasting Ovary atrophy Adipose degeneration Muscle degeneration

Metabolic abnoramlities Hyperglycemia Depletion of triglycerides Depletion of glycogen consumption, which is known as atrophy or wasting. Thus, like growth, wasting is a fundamental biological process. Importantly, wasting is also part of a complex systemic disorder associated with many diseases. Cachexia, the wasting syndrome commonly observed in advanced cancer patients, affects approximately eight million people worldwide. Due to the complexity of the

Cachexia-like Wasting in Drosophila

disease, it is challenging to dissect the molecular mechanisms of cachexia. We established the first non-mammalian model of cachexia-like wasting in *Drosophila melanogaster*, opening up a novel opportunity to use its powerful genetic and genomic tools to describe the genetic basis of cachexia-like wasting. We are currently investigating essential mechanisms underlying wasting process by exploiting *Drosophila* as an animal model of wasting, which may provide potential new avenues for the development of treatment strategies for cachexia.

Hosted by: Clemens Cabernard, Assistant Professor of Cell and Molecular Biology, Development

Monday, Nov 21, 2016 | 12:00pm HCK 132 Refreshments at 11:45am

During animal development,

anything that grows eventually

homeostasis, and aging,

decays or undergoes