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ICGEB International SEMINAR PROGRAMME 2017

Friday, 14 July 2017 | 12:00 noon | ICGEB Seminar Room, W building | Padriciano, 99, Trieste, ITALY



Monica DUS

*The University of Michigan,
Department of Molecular, Cellular and
Developmental Biology,
Ann Arbor, MI, USA*

While we understand how changes in the environment such as temperature and light direct animal behavior by acting acutely on neural circuits, we know less about the how the environment can lead to persistent changes in brain and behavior. Tackling this question has been challenging because it requires having a circuit-based understanding of the behavior and a mechanistic way to study how neural connections are changed by the environment. The reshaping of circuits that regulate food intake by a hyper-caloric diet in *Drosophila melanogaster* provides an attractive model for studying this question because the circuits are mapped, the behavior is easily quantifiable, and the environmental variables are simple to measure. We found that animals fed a Western style high-calorie diet show profound deregulation of feeding states: they incorrectly process the nutritional value of food, eat more, and become obese. We will present data showing how these behaviors are mediated by the reprogramming of feeding circuits by diet and how their effect is persistent even after animals are returned to the control diet.

“Reprogramming of Behavior by Diet”

Host: S. Zacchigna

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Open event - Free entrance

