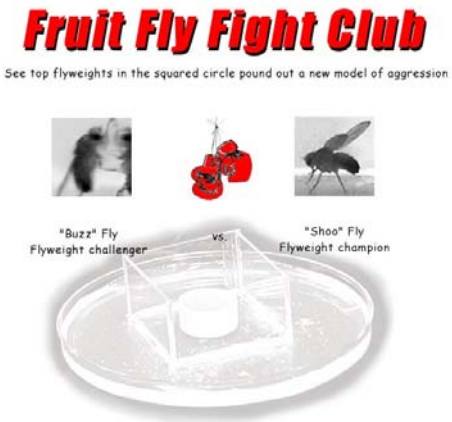
CSO and BGSA Present:

Genetic manipulations in the fruit fly fight club: love and war in a single gene and other stories

Dr Edward A. Kravitz, Harvard Medical School

Dr. Kravitz is the George Packer Berry Professor of Neurobiology at Harvard Medical School. Among his many achievements, he was the first to demonstrate that GABA was a neurotransmitter, and that an intracellular fluorescent dye could be successfully used to determine neuronal geometry.

For many years, the Kravitz laboratory has been examining the role of amine neurons in aggression using a lobster model system. About 8 years ago, the laboratory shifted to the study of fighting behavior using the fruit fly, *Drosophila melanogaster*, as a model organism. Although not widely known, both male and female fruit flies do fight and males at least become territorial (establish dominance relationships). With the genome fully sequenced and with elegant methods available for the selective manipulation of genes in subsets of central nervous system neurons, behavioral studies of aggression in flies offer a powerful experimental system for identifying the fundamental mechanisms underlying this behavior.



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Date: 13 April 2009
Time: 3:00pm
Location: WC 130