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NEUROSCIENCE SPEAKER SERIES



Edward Zagha

**Department of Molecular, Cell and Systems Biology
University of California, Riverside**

Neural Mechanisms of Selective Attention

**Wednesday, March 5th
4:30 PM**

Burns Lecture Hall

Department of Natural Science

Abstract: Goal-directed behavior requires the ability to process task-relevant target stimuli while ignoring extraneous distractor stimuli. To better understand the neural mechanisms underlying these processes, we trained mice in an operant whisker detection task in which they learn to respond to brief stimuli in one whisker field (target) and ignore identical stimuli in the opposite whisker field (distractor). We subsequently performed a range of neuronal recording and perturbation experiments in expert mice while they were performing this selective detection task. In this talk, I will present data from three studies related to the differential neuronal processing of target and distractor signals. Overall, these studies reveal cortical and subcortical mechanisms by which sensory signals are appropriately routed or suppressed according to task rules.