

演者 : Professor Douglas P. Munoz

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日時 : 2013 年 6 月 18 日 (火) 午後 4 時—5 時

場所 : 生理研 1F セミナー室 A+B

演題 : Role of the Superior Colliculus in coordinating the orienting response

要旨 :

The visual system must efficiently select crucial elements from the excessive information available in the environment for detailed processing. This selection process is greatly influenced by a bottom-up saliency-based mechanism, in which the saliency or conspicuity of objects (or locations) in the environment is encoded, and the appearance of a salient object can initiate an orienting response to allocate neuronal resources toward that object for computationally intensive processing. Saccadic eye movements and attention shifts, as components of the orienting response, are evoked by the presentation of a salient stimulus and are modulated by the stimulus saliency. The superior colliculus (SC) is a phylogenetically well-preserved subcortical structure, known for its central role in the initiation of eye movements and attention and in multisensory integration. The SC is also hypothesized to encode stimuli based upon saliency to coordinate the orienting response. In this presentation, I will review recent evidence showing a key role for the SC in coordinating orienting to salient stimuli. This includes modulations of eye movements, attention, and transient pupil responses.

対応者

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