

Departmental Seminar

The Cingulate Sulcus Visual Area (CSv): a Sensorimotor Interface for Locomotion?

11:30 a.m. – 12:30 p.m. | April 23, 2018 (Monday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

The human cingulate sulcus visual area (CSv) is more selective than any other cortical visual area for visual motion that reflects self-motion; it is almost silent (as measured with fMRI) in the presence of equivalent retinal motion that arises from the motion of external objects. CSv is sensitive to direction of self-motion and is particularly active when heading direction is changing. CSv also receives vestibular signals about self-motion. After outlining the evidence for the above statements I shall suggest, on the basis of MRI connectivity data, that the principle function of CSv may be to provide sensory information to the medial motor system for the guidance of locomotion, much as more dorsal visual regions such as V6A are thought to provide visual information to guide reaching and grasping. Finally, I shall present fMRI evidence that a homologous cortical region to CSv exists in the macaque brain, suggesting that such a system may be a general organizational feature of sensory-motor co-ordination in the primate brain.

~All are Welcome~