

大学院特別講義のご案内

- ◆ 日時: 2013年6月25日(火) 18:00～19:00
(質疑応答19:00～19:30)
- ◆ 場所: F棟4階 大学院セミナー室
- ◆ 講師: Callum F. Ross先生
(USA・University of Chicago・Professor)
- ◆ 演題: Continuous and discontinuous representations of jaw and tongue kinematics in neuron populations in M1 orofacial cortex.
- ◆ 要旨: The role of cortex in sensorimotor transformations during repeated iterations of voluntary arm and hand movements is well studied, but its role in controlling complex movement sequences is poorly understood. The primate feeding system is well-suited to address this question, because feeding sequences include a rich combination of voluntary, semiautomatic, and reflexive jaw and tongue movements. To investigate the role of motor cortex in regulating this complex convergence of information, we recorded activity from M1 neurons in macaque monkeys using Utah microarrays implanted in the orofacial region of primary motor cortex (M1) while measuring tongue and jaw kinematics using videofluoroscopy and 3-d jaw tracking. M1 neurons modulate their activity in response to natural categories of movement (ingestion, food manipulation, rhythmic chewing, swallowing), as well as continuous kinematic parameters. Using the generalized linear model framework in combination with dimensionality reduction techniques, we uncover aspects of this representation, including dynamic changes in network state as a function of movement context.

問い合わせ先: 口腔解剖学第二教室(2877)