

P256 Hirotaka Onoe, Hideo Tsukada, and Ichiro Fujita (Tokyo Metropolitan Neuroscience Inst., Hamamatsu PET center, Osaka Univ. Graduate School of Engineering Science, CREST · JST)

Localization and characterization of face-processing areas in monkeys: A PET study In our previous study, we applied PET imaging technique to behaving macaque monkeys, and found that a region in area TE of inferior temporal cortex was strongly activated during passive viewing of face images. This region was localized in the anterior part of the TE lateral to the anterior middle temporal sulcus, and was more strongly activated by faces than by nonface objects. In this study, we further characterized the stimulus-selectivity of this region by presenting facial parts as visual stimuli.

P257 Hiroyuki Yoneshima, and Ichiro Fujita (Osaka Univ. Graduate School of Engineering Science, CREST · JST)

Identification of differentially expressed nucleic acid sequences in the magnocellular and parvocellular layers of monkey lateral geniculate nucleus

The primate visual system is composed of two major processing streams whose segregation is most obvious in the lateral geniculate nucleus (LGN). We tried to identify genes that are expressed unevenly between magnocellular (M) and parvocellular layers of the LGN in Japanese monkeys using differential display and in situ hybridization methods. Several nucleic acid sequences with M-neuron enriched expression patterns were identified. We assessed the distributions of these sequences in the visual system.