

Tactile object perception and its underlying neural correlates

北田 亮 先生

神戸大学 大学院国際文化学研究科 准教授

日時： 2022年4月26日（火）午後5時～午後6時半

場所： 神戸大学大学院医学研究科 研究棟B・1階 第1講堂



We use the sense of touch to recognize objects around us and interact with others. Despite the potential importance, the underlying characteristics and mechanisms are scarcely understood. Previous neuroimaging studies have shown that a distributed network of brain regions including the visual cortex are associated with haptic object recognition. In this talk, I will explain the framework of tactile object processing in this network and some evidence supporting it. More specifically, I will explain (1) the supramodal role of the occipito-temporal cortex in object recognition (Kitada et al., 2014); (2) parallel processing of object properties (e.g., roughness, softness, and orientation) in the parietal operculum and posterior parietal lobule (Kitada et al., 2019); and (3) distinct, but overlapping, mechanisms between discriminative and affective aspects of tactile processing (Kitada et al., 2021). Finally, I will introduce ongoing projects and future directions.

1. Kitada R et al., The brain network underlying the recognition of hand gestures in the blind: the supramodal role of the extrastriate body area. **J Neurosci**. 34:10096-108. [2014]
2. Kitada R et al., Brain networks underlying tactile softness perception: A functional magnetic resonance imaging study. **Neuroimage**. 197:156-166. [2019]
3. Kitada R et al., Physical correlates of human-like softness elicit high tactile pleasantness. **Sci Rep**. 11:16510. [2021]

主催：神戸大学メディカルトランスフォーメーション研究センター（担当：生理学分野 078-382-5832）