

〈シンポジウム II〉

『皮膚感覚が心を育む』

触覚の神経生理学的基礎：皮膚から心まで

岩村吉晃

**Neurophysiological Basis of Touch: From the Skin to the Brain**

Yoshiaki IWAMURA

**Abstract**

Touch is one of somatosensory submodalities. The simplest example of touch is the sensation evoked when the skin surface is stimulated passively, while one of the more complex is to perceive an object by a freely moving hand. In the latter case, the motor and visual systems are also involved. In addition to such discriminative (epicritic) touch, there is protopathic touch that works in the emotional or homeostatic networks. They involve sensations conveyed by unmyelinated fibers such as a special type of touch, itch, pain, temperature sensation, etc. Brain mechanisms for the two aspects of touch seem independent, involving different parts of the brain, not only the first somatosensory cortex, but also the motor cortices, the parietal association cortex, occipital visual association cortices, the second somatosensory cortex, the insula, and the prefrontal cortices.

**Key words:** active touch, discriminative touch, emotional touch, homeostasis, brain networks.