

第23回“脳と末梢”セミナー/第49回脳科学セミナー

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Ephrin-Netrin synergy in spinal motor axon guidance

【日時】 平成26年1月27日(月)14:00～15:30

(時間が変更になりました。)

【場所】 理工学研究科大学院国際セミナー室

<要旨>

During neural circuit assembly, axonal growth cones integrate multiple guidance signals at trajectory choice points. How a growth cone perceives individual cues has been extensively studied, but much less is known about its ability to sense combinations of signals. To understand the molecular mechanisms underlying such integration at a cardinal choice point, we are studying the role of Netrin and ephrin signalling in the selection of spinal motor axon trajectories in the limb. Our genetic manipulation and in vitro culture experiments suggest the existence of independent mechanisms for synergistic signal integration in motor axons, one of them being initiated by the cross-talk between axon guidance signals at multi-receptor complexes in axonal growth cones.