



第 497 回つくば分子生命科学セミナー

TSUKUBA MOLECULAR LIFE SCIENCE SEMINAR

演題 : **Symmetry breaking in axon guidance and synapse formation**

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日時 : 2025 年 12 月 4 日 (木) 16:00-17:00

会場 : 臨床講義室 D

要旨 :

The proper wiring of axons and formation of synaptic connections are essential for the development and function of the nervous system. Although many axon guidance molecules and synaptic recognition molecules have been identified, how they control the directed growth of axons and assemble the asymmetrical presynaptic and postsynaptic structures are not fully understood. We found that the conserved signaling pathway that polarizes cells along the tissue plane, the planar cell polarity pathway, is essential for growth cone turning and glutamatergic synapse formation. In this presentation, I will discuss the progress in understanding the role and the mechanism of planar cell polarity proteins in axon guidance/regeneration, and the formation, plasticity, and degeneration of glutamatergic synapses.

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