

SEMINAR

アドバンス生命理学特論 Topics in Advanced Biological Science

A characterization of the homeostatic sleep response mediated by an adenosine dependent glia-neuronal circuit

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The function of sleep remains as one of the great enigmas of modern biology. Its importance is emphasized by the homeostatic sleep response (HSR) to the loss of normal sleep. The greater the time spent awake (and thus greater the loss of sleep) the greater the need for sleep as indicated by direct correlation to slow wave activity (SWA) intensity. SWA after sleep loss rebounds up to several fold over baseline during the ensuing sleep time. As sleep need resolves, so does the SWA intensity. The remarkable expression of this biomarker is controlled by adenosine as part of a neuronal-glia circuit linking glial metabolic state to neuronal excitability. We are exploring the possibility that this HSR-SWA signals sleep function through a reprogramming of cellular genomic activity.

4月16日(火) 14:30-16:00

理学南館1階セミナー室

Seminar Room, 1st Floor, Science South Building

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