



# NEURO GLOBAL Seminar

## Speaker

**Prof. Takuya Sasaki**

Department of Pharmacology  
Graduate School of Pharmaceutical Sciences  
Tohoku University



## Title

Hippocampal synchronized neuronal activity for learning, memory, and emotion

## Date

December 23, 2022 (Friday) 16:30-18:00 JST

## Venue

Lecture Room, Project Research Building,  
Graduate School of Life Sciences, Katahira campus  
【MAP】[https://www.tohoku.ac.jp/map/ja/?f=KH\\_D04](https://www.tohoku.ac.jp/map/ja/?f=KH_D04)

**Format** Hybrid (Onsite & Online)

**Registration URL** Refer to the message from the NGP office

●Neuro Globalプログラム生(Neuro Global Program Students)

【脳科学セミナーシリーズEx】/【先進脳科学セミナーシリーズEx】セミナー1ポイント

【Brain Science Seminar Series Ex】/【Advanced brain science seminar series Ex】1 points

●医学系研究科(Graduate School of Medicine)

【医学履修課程】国際交流セミナー (アドバンスド講義科目)出席1回分

【Medical Science Doctoral Course】International Interchange Seminar (Advanced Lecture course) It will be counted as 2 attendances.

●生命科学系研究科(Graduate School of Life Sciences)

【単位認定セミナー】/【イノベーションセミナー】 2ポイント付与します。

【Credit-granted seminar】/【Innovation seminar】 2 points will be granted to the students who will attend this seminar.

東北大学 Neuro Global 国際共同大学院プログラム事務局

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## Title

# Hippocampal synchronized neuronal activity for learning, memory, and emotion

## Speaker

### Prof. Takuya Sasaki

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## Abstract

The hippocampal network generates synchronized spikes of a large population of pyramidal neurons (often associated with sharp-wave ripples in local field potential signals).

Ample evidence demonstrates that hippocampal synchronized spikes play instrumental roles in mnemonic functions. Furthermore, our recent study found that such synchronization is strongly related to stress experiences in which stress memory-encoding neuronal ensembles are preferentially reactivated. In this symposium, I summarize these recent insights and discuss how hippocampal neuronal activity observed from various contexts serves as a neurophysiological substrate for learning, memory, and emotion.