### The 52nd Frontier Brain Science Seminar

Sponsored by Research Center for Idling Brain Science (RCIBS)

# Intercalated amygdala clusters in / beyond fear and extinction



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25th June, 2021 (FRI.) 17:00~18:30



#### Online ( Zoom live seminar )

Pre-registration is required. To register, please send

1 your name 2 your affiliation 3 student number if you are student and 4 university e-mail address to the following address.

RCIBS@cts.u-toyama.ac.jp

#### **Abstract**

Learning to fear and extinguishing excessive fear memory is essential for our survival and healthy life. Although there is evidence that these processes are mediated by distinct neural circuits, how those individual components distributed in the brain work in concert remains poorly understood. Through a combination of in vivo calcium imaging, functional manipulations, and slice physiology, we have recently demonstrated that distinct inhibitory clusters of intercalated neurons (ITCs) located in the amygdala orchestrate many known fear-promoting and fear-counteracting pathways. I will also discuss our preliminary results about the roles of ITCs in various behavioral states beyond fear and extinction.

Reference

Hagihara KM. et al.

Intercalated amygdala clusters orchestrate a switch in fear state.

Nature, 2021 May 26. (Advance online publication).

\* This seminar is eligible for credit accreditation for "High Order Brain Function" of Graduate School of Innovation Life Science.

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