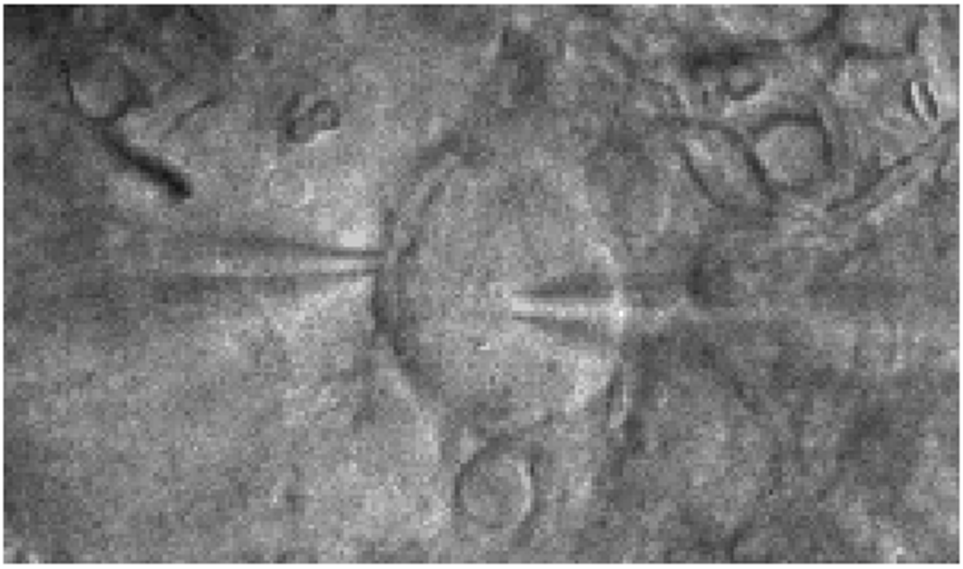
Neuroscience Symposium "The past and the future of synaptic physiology"

Date: Tue. Feb. 13, 2024, 13:45 p.m. - Wed. Feb. 14, 2024, 12:20 p.m.

Location: OIST Seaside House

7542 Onna Onna-son Kunigami-gun Okinawa 9040411, JAPAN



Abstract

The patch clamp technique, developed in the 1980s, has brought about a breakthrough in the field of neurophysiology. In this symposium, neuroscientists from various labs will discuss the past and future neurophysiology to which Professor Takahashi, has made important contributions by analyzing presynaptic functions using patch clamp techniques in slice. From now on we need to develop new research strategies by which the mechanism of synaptic function and dysfunction is explicitly clarified.

Symposium Schedule

13th February, 2024

Chair: Tetsuya Hori (opening remarks as well)

13:45- Tetsuya Hori (OIST, Japan)
"Manipulating the concentration of molecules in the presynaptic cytoplasm and observing its effects on synaptic transmission"

14:15- Takeshi Kanda (Nara Medical University, Japan)
"The brain state-dependent dynamics of local cortical networks"

14:45- Toshihide Hige (University of North Carolina at Chapel Hill, USA)
"Synaptic and circuit basis of learning in Drosophila"

15:15 break

Chair: Taro Ishikawa

15:30- Tomoko Ohshima-Takago (Tokyo University, Japan)
"Spatiotemporal dynamics of heterogeneous glutamate release at ribbon-type synapses in the goldfish retinal bipolar cell terminal"

16:00- Yukihiro Nakamura (Jikei University, Japan)
"Ca channel release coupling in presynaptic terminals of the developing sensory system"

16:30- Yasunori Hayasi (Kyoto University, Japan)
"AMPA receptor phosphorylation and synaptic plasticity"

17:00 break

Chair: Takayuki Yamashita

17:15- Tomoyuki Takahashi (OIST, Japan)
"Two pieces of unpublished observations"

14th February, 2024

Chair: Yukihiro Nakamura

9:00- Katsunori Kobayashi (Nippon Medical School, Japan)
"Noradrenergic signaling via hippocampal dopamine receptors"

9:30- Kensuke Futai (University of Massachusetts Chan Medical School, USA)
"The role of trans-synaptic adhesion molecules in the serotonergic system"

10:00- Kohgaku Eguchi (OIST, Japan)
"Exploring the role of phosphoinositides in synaptic transmission by visualization and manipulation"

10:30 break

Chair: Kohgaku Eguchi

10:50- Takafumi Miki (Akita University, Japan)
"Developmental regulation of presynaptic calcium channels at cerebellar synapses"

11:20- Yoshinao Kajikawa (Nathan Kline Institute, USA)
"Synaptic activity and field potentials: bridging scales"

11:50- Takayuki Yamashita (Fujita Health University, Japan)
"Synaptic Function Underlying Sensorimotor Processing in Mice"

12:20 end:

Poster presentation location: OIST Seaside House Lobby

Posting time: 13th February 9:00 to 14th February, 17:00

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