

## "Ion channels: looking back, seeing ahead"

### Schedule and Oral Presentations

<b>Dec 5 (Wed)</b>	
18:30 - 20:30	Reception party for invited speakers & informal discussion (New Grand Hotel)
(Presentation (+ discussion) time is <b>30 (+ 10) min</b> , if not stated otherwise.)	
<b>Dec 6 (Thu)</b>	
9:00 - 9:05	Opening remarks
	Keiji Imoto (Director General, NIPS)
9:05 - 9:10	Introduction
	Yasuo Mori (Kyoto)
<b>Session 1 Special Lecture</b> (Chair : Yasuo Mori)	
9:10 - 10:05	Ion channel wonderland
	Keiji Imoto (NIPS) <span style="float: right;"><b>45 + 10 min</b></span>
10:05 - 10:15	Short break
<b>Session 2 Potassium channels &amp; HCN channels</b> (Chair : Shigetoshi Oiki)	
10:15 - 10:55	New insights into basic properties of the strong inward rectifier K <sup>+</sup> channel
	Keiko Ishihara (Kurume)
10:55 - 11:35	Direct neurotransmitter activation of voltage-gated potassium channels
	Geoffrey Abbott (Irvine, USA)
11:35 - 12:15	Molecular mechanisms of voltage- and ligand-gating in HCN channels
	Baron Chanda (Madison, USA)
12:15 - 12:25	Group Photo
12:25 - 13:40	Lunch & Poster viewing
<b>Session 3 Membrane &amp; membrane proteins</b> (Chair : Emily Liman)	
13:40 - 14:20	Cell surface flip-flop of phosphatidylserine is critical for PIEZO1-mediated myotube formation
	Yuji Hara (Kyoto)
14:20 - 15:00	Mechanisms and physiological roles of voltage-sensing phosphatase
	Yasushi Okamura (Suita)
15:40 - 16:00	Coffee break
<b>Session 4 Cutting-edge methodologies</b> (Chair : Dan Minor)	
16:00 - 16:40	Measurement and physiological significance of nanoscale vibrations in the cochlear sensory epithelium of the inner ear
	Hiroshi Hibino (Niigata)
16:40 - 17:20	Renovating lipid bilayer systems for studying channel-membrane interplays

	Shigetoshi Oiki (Fukui)
17:20 - 18:00	Time resolved protein crystallography using SACLA
	So Iwata (Kyoto)
18:30 - 20:30	Dinner for invited speakers & informal discussion

## Dec 7 (Fri)

<b>Session 5 TRP channels</b> (Chair : Michael Zhou)	
9:00 - 9:40	Structure and function of thermosensitive TRP channels
	Makoto Tominaga (NIPS)
9:40 - 10:20	Changes in redox status activate TRP channels: underlying mechanisms and its significance
	Yasuo Mori (Kyoto)
10:20 - 10:40	Coffee break
<b>Session 6 Special lecture</b> (Chair : Keiji Imoto)	
10:40 - 11:35	Acute oxygen sensing: Mitochondria signaling to membrane ion channels
	José López-Barneo (Seville, Spain) <b>45 + 10 min</b>
11:35 - 11:45	Short break
<b>Session 7 Organella channels</b> (Chair : José López-Barneo)	
11:45 - 12:25	Roles of mitochondrial Ca channels/transporters in cellular functions
	Ayako Takeuchi (Fukui)
12:25 - 13:30	Lunch & Poster viewing
13:30 - 14:10	Structural basis of function and regulation of the endolysosomal calcium channel TRPML3
	Jian Yang (New York, USA)
<b>Session 8 Potassium channels</b> (Chair : Geoffrey Abbott)	
14:10 - 14:50	Infrared spectroscopy analyzing "molecular fingerprint" of the selectivity filter in potassium channels
	Yuji Furutani (Nagoya)
14:50 - 15:30	Discovery of a Cryptic, Druggable Site in the Heart of a Polymodal Ion Channel
	Dan Minor (San Francisco, USA)
15:30 - 15:50	Coffee break
15:50 - 16:30	Heteromerization of K2P channels: from physiology to physiopathology
	Guillaume Sandoz (Nice, France)
16:30 - 17:10	The two faces of TREK K2P channels: polymodal and leak channels
	Florian Lesage (Nice, France)
<b>Session 9 Poster session</b>	
17:10 - 19:00	Poster session with coffee
19:00 - 20:45	Party for all participants & informal discussion

**Dec 8 (Sat)****Session 10 Sodium channels** (Chair : Baron Chanda)

9:00 - 9:40	Voltage-gated Na channel -The structural function relationship and the channelopathy - Tomoya Kubota (Suita)
9:40 - 10:20	Molecular mechanisms of the depolarization-induced potentiation of two-pore Na <sup>+</sup> channel 3 (TPC3) Takushi Shimomura (NIPS)
10:20 - 10:40	Coffee break

**Session 11 New channels and taste perception** (Chair : Yasushi Okamura)

10:40 - 11:20	Identification of a new family of proton-selective ion channels: the otopetrins Emily Liman (Los Angeles, USA)
11:20 - 12:00	CALHMs: Fast-activating voltage-gated ATP channels for rapid purinergic neurotransmission Akiyuki Taruno (Kyoto)
12:00 - 13:00	Lunch & Poster viewing

**Session 12 Ion channels in synaptic transmission** (Chair : Jian Yang)

13:00 - 13:40	Structural mechanisms of gating in ionotropic glutamate receptors Alexander Sobolevsky (New York, USA)
13:40 - 14:20	Presynaptic ion channels and plasticity Lu-Yang Wang (Toronto, Canada)
14:20 - 15:00	Excitatory neurotransmission mediated by TRPC4 channels Michael Zhu (Houston, USA)
15:00- 15:05	Closing remarks Keiji Imoto (Director General, NIPS)