2025 Taiwan-Japan Neuroscience Exchange Workshop

- Satellite Event of the 48th Annual Meeting of the Japan Neuroscience Society

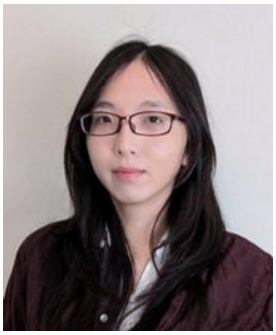
July 23rd, 2025 13:15 – 17:00 (JST)

TOKI MESSE, Niigata Convention Center, Room 303+304

CONTENTS

PROGRAM

13:15-13:25	Reception/ Get-together
13:25-13:30	**Opening** from **Pin-Wu Liu**
13:30-14:20	**Session 1**
13:30-13:40	**Pin-Wu Liu** / Postdoc from Kyoto University
13:40-13:50	**Takeo Saneyoshi** / Professor from Institute of Science Tokyo
13:50-14:00	**Ke-Hsin Chen** / Assistant Professor from National Defense Medical Center
14:00-14:10	**Ming-Ching Chiang** / Postdoc from OIST
14:10-14:20	**Fujii Rena** / PhD Student from Osaka Metropolitan University
14:20-14:30	*Break*
14:30-15:10	**Session 2**
14:30-14:40	**Nao Nakagawa-Tamagawa** / Assistant Professor from Kagoshima University
14:40-14:50	**Yao-Chia Shih** / Assistant Professor from Yuan Ze University
14:50-15:00	**Kazumasa Tanaka** / Associate Professor from OIST
15:00-15:10	**Bolati Wulaer** / Research Scientist from RIKEN
15:10-15:20	*Break*
15:20-16:00	**Session 3**
15:20-15:30	**Hsu-Wen Chao** / Associate Professor from Taipei Medical University
15:30-15:40	**Chun-Hsien Chu** / Assistant Professor from National Cheng Kung University
15:40-15:50	**Ricky Leung** / Professor from University of Memphis
15:50-16:00	**Ken Kunugitani** / PhD Student from Kyoto University
16:00-16:45	**Session 4**
16:00-16:05	Workshop Group Photo
16:05-16:40	Free Discussion
	with beverages and light food
16:40-16:45	**Closing** from **Wen-Kai You**



Kyoto University
Graduate School of Medicine

Pin-Wu LIU (劉品吾)

Postdoctoral Researcher

liu.pinwu.52n@kyoto-u.jp

Research interest

Molecular and cellular mechanisms underlying memory formation and maintenance

Current research project

- Synaptic nanostructure reconstitution via LLPS with purified protein systems.
- Observation of synaptic nanostructure via advanced microscopy.

Techniques

Molecular cloning and CRISPR/Cas9 gene editing; Protein purification and in vitro LLPS reconstitution; Basic biochemistry (e.g., SDS-PAGE, immunoprecipitation); Neuronal culture and rodent brain slice preparation; Confocal and two-photon microscopy; Super-resolution microscopy (dSTORM, DNA-PAINT)

The techniques or any other aspects desired for future collaboration

In vivo optogenetics and behavior analysis; OLED (organic light-emitting devices)-based optical stimulation systems

Institute of Science Tokyo
School of Life Science and Technology,
Department of Life Science and Technology

Takeo SANEYOSHI (實吉岳郎)

Professor

saneyoshi.t.cfc3@m.isct.ac.jp

Research interest

Mechanisms of memory persistence

Current research project

The key questions we aim to address include:

1) What are the molecular mechanisms that maintain memory information at synapses?
2) Does CaMKII function as a memory maintenance device?
3) Can small molecules be used for the treatment and diagnosis of memory and neurodevelopmental disorders?

Techniques

Protein-protein interaction, Live-imaging, FRET-FLIM Imaging, Liquid-liquid phase separation, Knock-in mice, Behavior analysis

The techniques or any other aspects desired for future collaboration

Electrophysiology, Omics analysis

National Defense Medical Center
Brain Research Center

Ke-Hsin CHEN (陳可欣)

Assistant professor

chenkehsin@gmail.com

Research interest

Experience-induced whole brain functional connectivity alteration, caused by neuromodulation, learning, and drug addiction etc.

Current research project

1) Comparative neuroanatomy and histology of Formosan rock macaque and other non-human primates
2) The neuromodulatory effect of rTMS using resting state fMRI in non-human primates
3) The neuromodulatory effect of non-ablative radiosurgery and its application in alcoholism treatment on miniature pig model

Techniques

1) Magnetic resonance imaging for small to large lab animals, including task/resting state fMRI, anatomical images, diffusion tensor images
2) Neuromodulation: radiosurgery, rTMS

The techniques or any other aspects desired for future collaboration

1) Viral vectors for fiber tracing

2) Gene sequencing techniques either for individuals to build a genome bank for Formosan rock macaques, or for cellular level to recognize brain-wide molecular architecture which help to identify brain areas

Okinawa Institute of Science and Technology (OIST)
Memory Research Unit

Ming-Ching CHIANG (江明憬)

Postdoctoral Researcher

ming-chiang@oist.jp

Research interest

Neural mechanism underlying memory encoding, consolidation, and retrieval

Current research project

Memory consolidation during artificial hibernation in mice

Techniques

Tetrode recording, Neuropixels recording, Miniscope recording, Optogenetics, Chemogenetics, and Transgenic mice

The techniques or any other aspects desired for future collaboration

Open to any possible collaboration

Osaka Metropolitan University
Graduate School of Medicine,
Department of Anatomy and Neuroscience

Rena FUJII (藤居怜那)

PhD student

sx25062j@st.omu.ac.jp

Research interest

Neuroscience

Current research project

Neurogenesis

Techniques

Immunohistochemical staining

The techniques or any other aspects desired for future collaboration

Optogenetics

Kagoshima University
Graduate School of Medical and Dental Sciences,
Department of Physiology

Nao NAKAGAWA-TAMAGAWA (玉川(中川)直)

Assistant professor

naonaka@m.kufm.kagoshima-u.ac.jp

Research interest

Neuronal morphogenesis and circuit formation in neocortex

Current research project

- Analyzing how channelopathy (especially ASD and epilepsy)-related channel mutations affect neuronal morphology and circuit formation in mouse neocortex. (Nakagawa-Tamagawa et al., *Front Neurosci* 15, 747951, 2021)
- Analyzing the physiological importance of cell type-specific gap junction network in the developing mouse neocortex. (Maruoka*, Nakagawa* et al., *Science* 358, 610, 2017)

Techniques

- Patch-clamp recording from various samples (e.g., acute brain slice, dissociated neuron, culture cell, hIPSC-derived brain organoid) and neurons (any types of neurons in rodent brains from neonate to adult)
- Gene introduction using in utero electroporation
- Dissociated culture for morphological analysis and calcium imaging

The techniques or any other aspects desired for future collaboration

I'm open to any form of international joint research and collaboration. One of the aims is to apply for international research grants or symposiums at international conferences. I want to discuss with researchers on topics related to mine or who have techniques applicable to my research (calcium signaling analysis, time-lapse confocal imaging of dissociated culture neurons, neuron or circuit modelling, etc).

Yuan Ze University
Graduate Institute of Medicine

Yao-Chia SHIH (石曜嘉)

Assistant professor

ycshih@saturn.yzu.edu.tw

Research interest

Brain Structural MRI/Aging/AI/Dementia/Movement Disorders

Current research project

Normative modelling of diffusion MRI data to detect aging-related

Techniques

Diffusion MRI/Brainstem Tract Atlas/Normative Modelling/Resting-state fMRI

The techniques or any other aspects desired for future collaboration

Diffusion MRI/Normative Modelling/AI

Okinawa Institute of Science and Technology (OIST)
Memory Research Unit

Kazumasa TANAKA (田中和正)

Associate professor

kazumasa.tanaka@oist.jp

Research interest

Memory, Hippocampus, Engram, Hibernation

Current research project

Mice, Single unit recording/Ca imaging from freely moving mice, Optogenetics, Chemogenetics, Optical/electron microscopy, Hippocampus, Neocortex, Memory engram, Hibernation

Techniques

Single unit recording/Ca imaging from freely moving mice, Optogenetics

The techniques or any other aspects desired for future collaboration

2p imaging in freely moving mice

RIKEN
Center for Brain Science,
Laboratory for Glia-Neuron Circuit Dynamics

Bolati WULAER

Research Scientist

ular327@gmail.com ; @WulaerB

Research interest

Cognition, Addiction

Current research project

1) Astrocytes' effect on circuit and behavior
2) C57BL/6 substrain differences

Techniques

Cell-, Circuit-specific, Activity-dependent mapping/ manipulation tools; 2P *ex/in vivo* imaging; Fiber-photometry; RNA-seq; Touchscreen-based behavioral tasks

The techniques or any other aspects desired for future collaboration

In vivo cell activity, Whole-brain cell mapping/ tracing, and FACS analyses

Taipei Medical University
College of Medicine

Hsu-Wen CHAO (趙需文)

Associate Professor

chaohw3619@tmu.edu.tw

Research interest

Genome content switch in polyploid tissue

Current research project

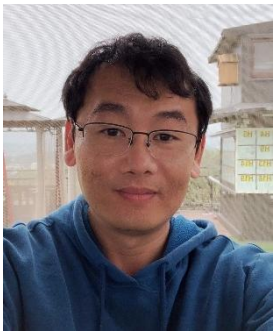
To improve gene deliver efficiency in primary and slice culture system

Techniques

Primary culture, Organoid culture, Live image, Liver tumor model

The techniques or any other aspects desired for future collaboration

Multi-omics & computational analysis and evolutionary model construction



National Cheng Kung University
Institute of Molecular Medicine

Chun-Hsien CHU (朱俊憲)

Assistant professor

chunhsienchu@gmail.com

Research interest

Neuroimmunology

Current research project

The role of neuron-glia interactions in both healthy and diseased conditions.

Techniques

Primary neuron-glia coculture system

The techniques or any other aspects desired for future collaboration

Animal models of neurological disorders

University of Memphis
Division of Social and Behavioral Sciences

Ricky LEUNG

Professor

rcleung@memphis.edu

Research interest

AI and neuroscience

Current research project

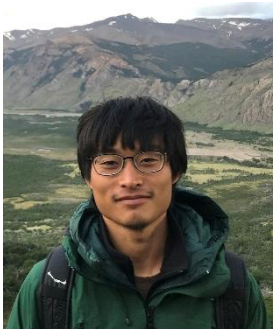
Using AI/ML to develop drugs/therapies to help substance use disorder (SUD) patients

Techniques

TBA

The techniques or any other aspects desired for future collaboration

AI and all other areas



Kyoto University
Graduate School of Medicine

Ken KUNUGITANI (椚谷健)

PhD student

kunuken846@gmail.com

Research interest

Molecular mechanism of memory

Current research project

Comprehensive Identification of Synaptic Proteins Captured by Active CaMKII via Liquid-Liquid Phase Separation

Techniques

AlphaFold3, Co-Crystallization, ITC, LLPS, Super-resolution microscopy

The techniques or any other aspects desired for future collaboration

Cryo-EM, Electrophysiology, FRET-FLIM

PARTICIPANTS

Name	Institution / Organization	Position	Research interest/topic/aspect	Main research project	Techniques	For the future collaboration	Email
Shuhei UEDA (上田修平)	Nagoya University (JP)	Assistant professor	• Molecular/cellular/circuit mechanisms underlying the pathophysiology of stress-related psychiatric disorders • Elucidation of molecular and cellular mechanisms of amygdala emotional circuits • *In vivo* Ca2+ imaging, In vivo microdialysis, Mouse behavioral analysis, Mouse stereotaxic surgery (virus injection, probe implantation), Transcriptome analysis • *In vivo* electrophysiology, Novel cellular manipulation and visualization techniques using viruses or other approaches, Computational analysis of neural activity and behavior				s.ueda@riem.nagoya-u.ac.jp
Chi-Jung HUNG (洪啟榮)	Cold Spring Harbor Laboratory (US)	PostDoc	Sleep	Cancer and brain	All related to neuroscience	Mini scope	hung@cshl.edu
Tzu-Ting HUANG (黃子庭)	Tohoku University (JP)	Assistant professor	Sensorimotor control and learning/behavioral neuroscience	Drosophila olfactory learning behaviors and C. elegans temperature learning behaviors	Fly and jellyfish behavior and anatomical analysis	Animal tracking	tzu.ting.huang.c8@tohoku.ac.jp
Chang-Ting TSAI (蔡長廷)	Nagoya University, Graduate School of Medicine (JP)	Student	Chronobiology	Mice, suprachiasmatic nucleus	EEG/EMG, optogenetics, chemogenetics, and immunostaining	Fiber photometry and electrophysiology	t761303@gmail.com
Leah Men Shin KUO (郭孟昕)	Kyoto University (JP)	Student	Molecular Neuroscience	Glutamate receptor organization	dSTORM	Super-resolution microscopy	leah.kuo.26v@st.kyoto-u.ac.jp
Chia-Yuan CHANG (張家源)	Columbia University (US)	PostDoc	Aging Neuroscience & Decision making	Neural mechanism underlying strategy alternation in decision -making task in aging mice	Fiber photometry, *in vivo* ephys recording, mice model	Spacial transcriptome, SCRNAseq	peter.chiayuanchang.2020@gmail.com
Ting-Feng LIN (林廷峯)	University of Chicago (US) / Utrecht University (NL)	Principal investigator	Neuroplasticity in cerebellum	Mice/zebrafish/cerebellum	Light sheet microscopy/2p	Genetics and microscopy	tingfenglin.ac@gmail.com
Habib ULLAH	National Cheng Kung University (TW)	Student	Memory processing	To figure out how memories are encoded, retained and retrieved using Drosophila model	Live cell calcium imaging, optogenetics, Behavior	Electrophysiology, Two-photon microscopy	zoologist399@gmail.com

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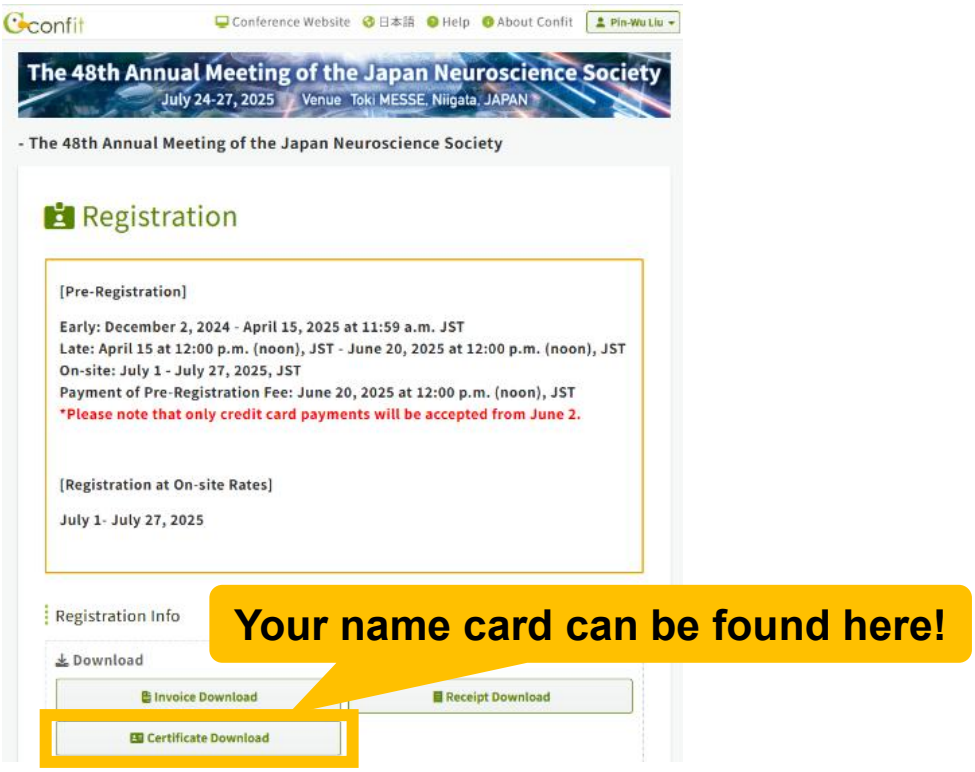
Name	Institution / Organization	Position	Research interest/topic/aspect	Main research project	Techniques	For the future collaboration	Email
Tien-Ying TSAI (蔡天穎)	Academia Sinica, Genomics Research Center (TW)	PostDoc	Neurodegenerative Diseases; Amyloid proteins; Autophagy; Live-cell imaging	Investigating the role of lysosome in the clearance of Amyloid-β and TDP-43 complex in Alzheimer's disease by using cell imaging in neuroblastoma, primary neurons, and iPSC-derived neurons	Analytical ultracentrifugation (AUC), Photoinduced cross-linking of unmodified protein (PICUP), Isothermal titration calorimetry (ITC), Far-UV CD spectroscopy, Fourier transform infrared spectroscopy (FTIR)	Live-cell imaging, Single-molecule tracking	tien881009@gmail.com
Kotaro MIZUTA (水田恒太郎)	New York University Abu Dhabi (AE)	PostDoc	Memory mechanisms	Dynamics of hippocampal CA1 neurons during spatial learning	*in vivo* imaging, virtual reality	Simulation used our imaging data	kotaro.mizuta@gmail.com
Wen-Kai YOU (游文愷)	National Defense Medical Center (TW)	Assistant professor	• Taking advantages of two distinct animal models (mice and monkeys), we are interested in studying the neural mechanisms underlying higher cognitive functions, especially those of attention and (economic) decision making • (1) Investigating the role of a frontal area (Cg/M2) of mouse, where we hypothesize to be equivalent to the frontal eye field (FEF) of primates, in controlling attention; (b) the differences in the visual information that is transmitted from Cg/M2→V1 and from Cg/M2→SC using in vivo electrophysiological recording; and (c) whether inactivating Cg/M2 would impair the attentional behaviors in mice. (2) Investigating the neuromodulatory effects of transcranial magnetic stimulation (TMS) using in vivo electrophysiology and rs-fMR in non-human primate. (in collaboration with Ting-Yu Chang, You-Ping Yang, and Ke-Hsin Chen). • For mice, we have: (1) Mice behavior training system (using a touchscreen interface); (2) In vivo (extracellular) electrophysiological recording; (3) Chemogenetics / Optogenetics. For monkeys, we have: (1) Eye-tracking & behavioral training system (psychophysical tasks); (2) Transcranial magnetic stimulation (TMS); (3) MRI/CT; (4) In vivo (extracellular) electrophysiological recording -(1)(2)(3) can also be used in humans. • We would appreciate if anyone could share their experience on: (1) Using viral techniques in monkeys - for neuronal labeling, histology, chemo- or opto-genetic manipulations etc. (2) Precise targeting the brain area of interest upon using non-invasive techniques (e.g., TMS or focused ultrasound) (3) Modeling works in analyzing behavior (psychophysical) or neuroimaging data. Besides, we are open to any other possible collaborations.				wkyou@mail.ndmctsgh.edu.tw ; wenkai.you@gmail.com

PARTICIPANTS

Name	Institution / Organization	Position	Research interest/topic/aspect	Main research project	Techniques	For the future collaboration	Email
Ching-Pu CHANG (張菁圃)	National Institute for Physiological Sciences (JP)	PostDoc	Hibernation, Thermal Regulation, *in vivo* image	Sensory processing and brain thermal regulation in QIH mouse model and hibernator	*In vivo* two photon imaging	Mouse behaviour experiments, imaging analysis	laurencp@nips.ac.jp
Ming-Liang LEE (李明亮)	National Institute for Physiological Sciences (JP)	PostDoc	Glucose metabolism, glucose-sensing, thermoregulation	Relationships between glucose-sensing neurons and thermoregulation (QIH)	insulin clamp	electrophysiology, miniscope, scRNA sequencing	lee@nips.ac.jp
Ryusuke SHIOTA (塩田竜亮)	Nagoya University (JP)	Student	Neuroscience	mouse, fear conditioning, BioID, Calcium, CAMKinase, CeA	phos-tag, biochemistry, BioID	Nothing in particular	shiota.ryusuke.x4@s.mail.nagoya-u.ac.jp

GENERAL INFORMATION

- **Reception**
  The reception desk will be open from 13:15 to 16:00. Please print and bring your name card, which will be used at the JNS meeting. A badge holder will be provided once you have completed the reception process.



- **Speaker guidance**
  10-minute slot
  - Your presentation should briefly introduce your team, your current research interests or ongoing projects, and any potential opportunities for collaboration.
  - Each 10-minute slot consists of an **8-minute talk** followed by a **2-minute Q&A session**. A bell will ring at the 8-minute mark. Please conclude both your talk and the Q&A within the allocated time.
  - Please wait near the presentation desk when it is almost your turn.
  - Please use your own laptop for the presentation.
  - The meeting room projector supports **HDMI** input. Adapters for **USB Type-C** and **Mini DisplayPort** to HDMI will be available. If your laptop uses a different type of video output, please bring your own HDMI adapter.

- **Audience guidance**
  You're welcome to raise your hand and ask questions during the Q&A session.

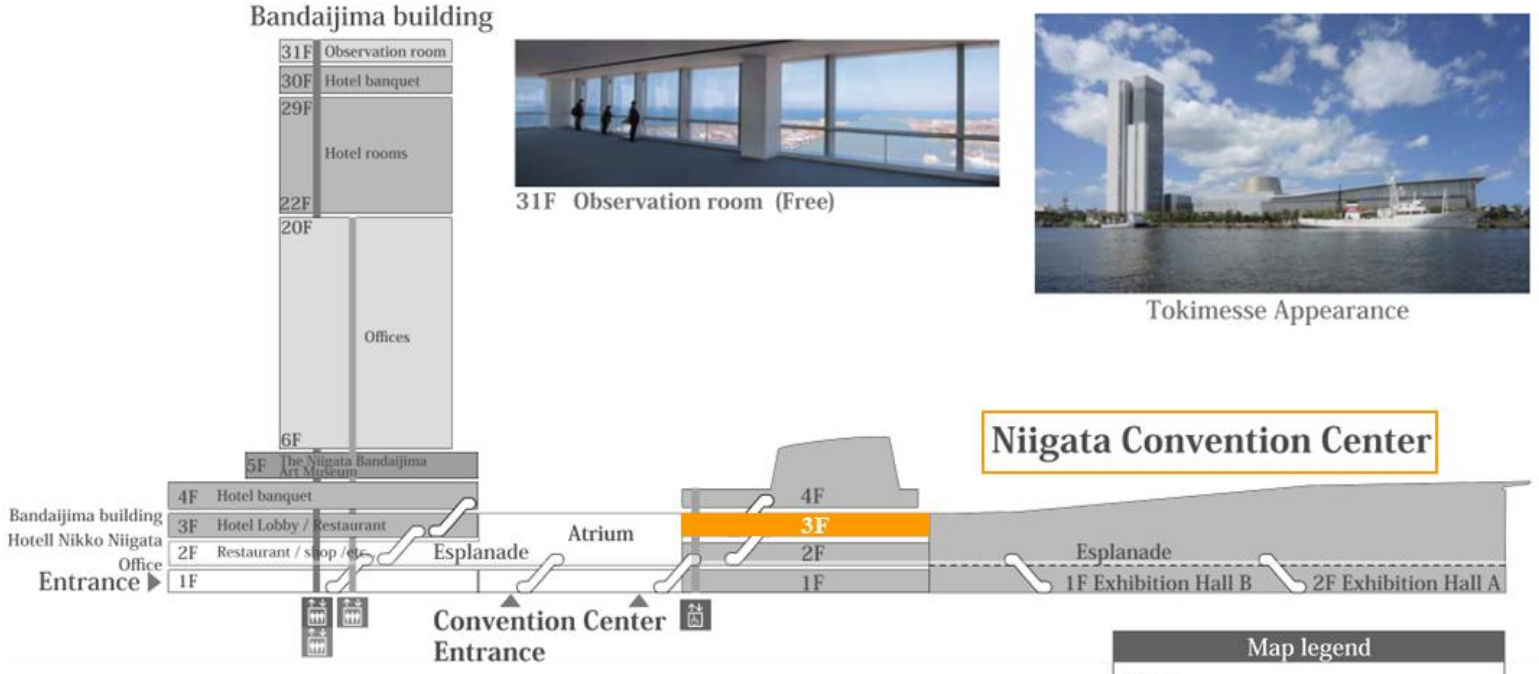
- **Confidentiality Notice**
  All presentations at this workshop are strictly confidential. Unauthorized recording or photography is prohibited and may result in removal from the event or further action, as presentations may include unpublished or proprietary information.

ACCESS


Niigata Airport
新潟空港
TOKI MESSE
Niigata Convention Center
Niigata Station
新潟駅
山の下船江町
浜海水浴場
臨港線
MUJI
無印良品 新潟河渡新町
Yamanoshita
Minato land
山の下
みなとランド
Irifune Minato tower
入船みなとタワー
Niigata Kotsu
Irifune Office
新潟交通(株)
入船営業所
HIGASHI-WARD
東区
Junsaiike Park
じゅんさい
池公園
KODO
河渡
Komeri Power
Koudo Store
コメリパワー河渡店
MATSUSAKI
松崎
West
Coast Park
西海岸公園
Niigata Port
新潟港
Minatopia: Niigata
City History Museum
新潟市歴史
博物館みなとぴあ
Pier Bandai
みなとのマルシェ
ピアBandai
Nari
なり
Top rated
新潟市 東区役所
Sasakido-Sen
Ebigase IC
海老ヶ瀬IC
Oyachi IC
逢谷内IC
Ōgata
大形
Takeo IC
竹尾IC
Prefectural
会館
Google

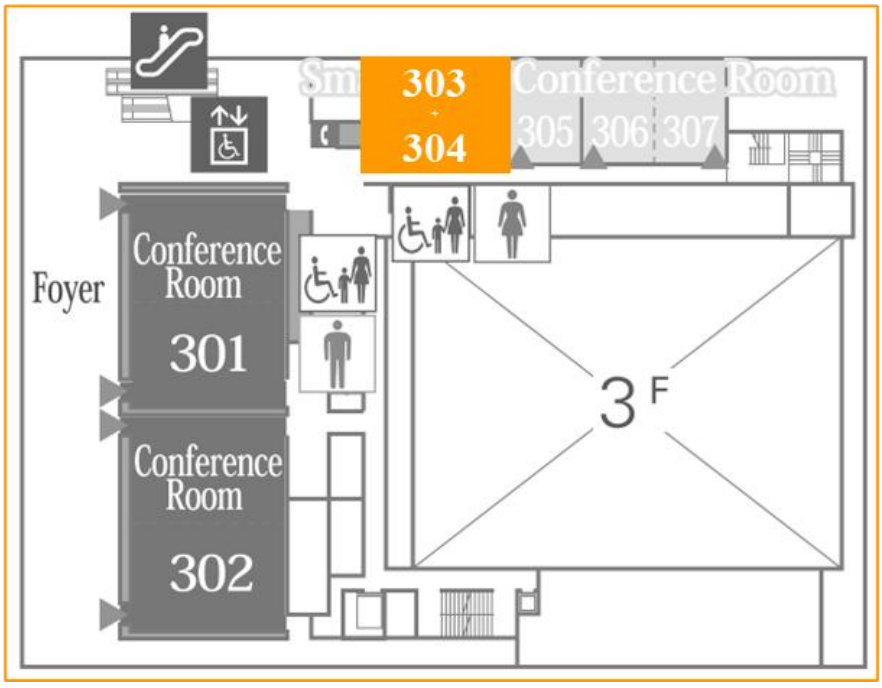

Niigata Airport
Taxi (approx. 20 min.)
Limousine bus
(approx. 25 min.)
Niigata Station
minami guchi
Bandai guchi
Bus (approx. 15 min.)
Taxi (approx. 5 min.)
Walk (approx. 20 min.)
TOKI MESSE

FLOOR MAP



31F Observation room (Free)

Tokimesse Appearance



Map legend

- Toilet
- Multipurpose toilet
- Elevator
- Escalator
- Smoking Are (outdoors)
- Lockers
- Public phone
- Nursing room
- Vending machine
- Restaurant
- Shop
- Automated external defibrillator

MESSAGE FROM THE ORGANIZERS

Thank you for attending this workshop! Your insights and contributions enriched our discussions and continue to shape future collaborations.

We sincerely thank ***the 48th Annual Meeting of the Japan Neuroscience Society*** for recognizing our program as an official satellite event. We also appreciate the ***Japan Neuroscience Society*** and the editorial team of JNS News for promoting this event through their platform.We are also deeply grateful to our sponsor, ***the Public Promoting Association Kura Foundation***. Their generous support enabled us to hold this workshop in such a welcoming venue and provide key amenities.

Although we've organized similar workshops in the past, each iteration brings new challenges and learning opportunities. We welcome your honest feedback on any aspect of the event—your input helps us refine our approach and raise the standard each year.

Looking ahead, we hope to host the next edition around the time of next year's JNS or Taiwan Neuroscience Society (TNS) meeting. If you are interested in presenting or have a collaborator to recommend, we would love to hear from you.

Until then, we wish you continued success in your research and look forward to reconnecting at future events.

Organizers

Pin-Wu Liu, Ming-Ching Chiang, Chi-Jung Hung, Shuhei Ueda