



Grant-in-Aid for Scientific Research on Innovative Areas

Non-linear Neuro-oscillology:

Towards Integrative Understanding of Human Nature

## **International symposium**

### **Neural Oscillation Conference 2017**

#### **Problems of Consciousness and Neuropsychiatric Disorders as Network Diseases**

# **PROGRAM**

June 16 -18, 2017, Tokyo, Japan

# Information for Attendees

## 1. Registration

June 16 (Fri.)

Time: 16:30

Place: FUKUTAKE Learning Theater

June 17 (Sat.)

Time: 8:30

Place: Tetsumon Memorial Auditorium (Experimental Research Bldg. 14F)

June 18 (Sun.)

Time: 9:00

Place: Tetsumon Memorial Auditorium (Experimental Research Bldg. 14F)

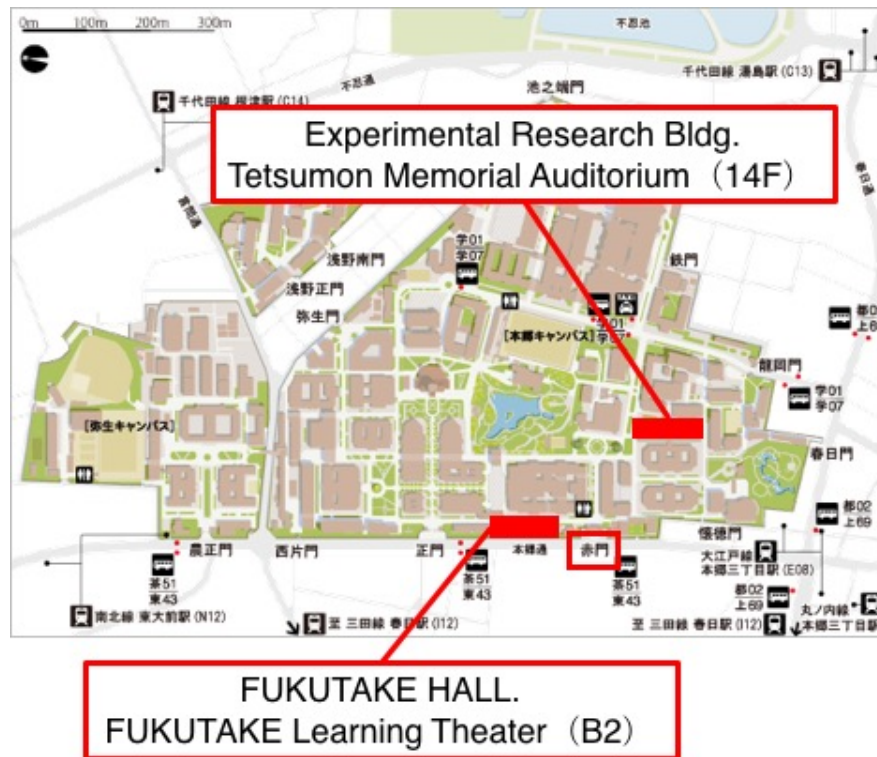
## 2. Venue information

Hongo Campus, Tokyo University (7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-8654, Japan)

## Access

Nearest station	Time required
Hongo-sanchome Station (Marunouchi Line)	8 min on foot
Hongo-sanchome Station (Oedo Line)	6 min on foot
Yushima or Nezu Station (Chiyoda Line)	8 min on foot
Todaimae Station (Namboku Line)	1 min on foot
Kasuga Station (Mita Line)	10 min on foot

## Campus MAP



### 3. Eating and Drinking

Eating and drinking are prohibited in the venue. We will not prepare your lunch on June 17 (Sat.).

### 4. Cloakroom

Cloakroom is not prepared.

### 5. Smoking

Smoking is forbidden in the venue. There are several designated smoking areas around the venue.

### 6. Free Wi-Fi

Wireless LAN (Wi-Fi) is available at Tetsumon Memorial Auditorium in Tokyo University. We will tell you the SSID and password at the reception desk.

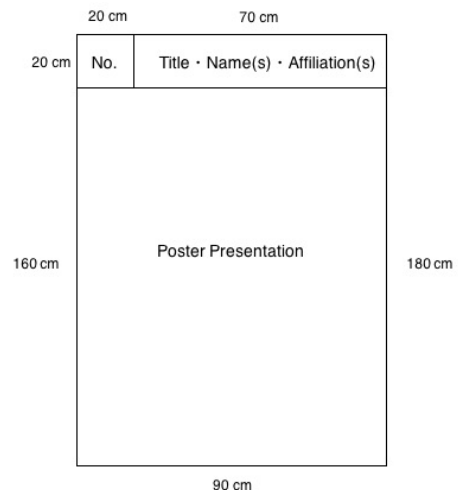
# Information for Presenters

## Information for Lectures and Symposium presenters

- 1) The language to be used for presentation is English.
- 2) Please prepare PC by yourself.
- 3) We use only VGA D-sub 15-pin male connection to data projections. If your laptop has no VGA D-sub 15-pin female output, bring an appropriate connector converter of your own.
- 4) Screen size is 1024px × 768px.
- 5) Be sure to bring your own AC adapter for power supply and to disable screensavers and power-saving mode prior to your presentation.
- 6) Please check the operation before presentation.

## Poster Presentations

- 1) Poster presentations should also be made in English.
- 2) Venue: Graduate school seminar room (1304), Experimental Research Bldg 13F.
- 3) The display and removal times are follows:  
Display 12:30 – 13:30, Removal 17:30 – 18:00  
Poster remaining after the removal time will be disposed of by the Secretariat.
- 4) Each poster is tagged with the number in the left upper corner (20 cm wide × 20 cm wide) of the panel. Attach your poster to the corresponding panel as shown on the figure.



# Program Timetable

	June 16 (Fri) FUKUTAKE learning theater	June 17 (Sat) Tetsumon Memorial Auditorium	June 18 (Sun) Tetsumon Memorial Auditorium
9:00		Symposium 9:00 - 12:30	
10:00		Disorganized Networks in Parkinson Desease	Roundtable 2 9:30 - 12:30
11:00			Epilepsy as a Window for Neuroscience Research
12:00			
13:00			
14:00		Roundtable 1 13:30 - 16:00	
15:00		Consciousness and Multiple Levels of Non-linear Brain	
16:00	Reception		
17:00	Public lecturer 17:00 - 18:30	Poster session 16:10 - 17:30	
18:00	The spontaneous brain - Key to our self and consciousness?	Information exchange meeting 18:00-20:00	
19:00			
20:00			

# Program

## **Fri. June 16, 2017**

FUKUTAKE Learning Theater

**17:00 – 18:30**

### **Public lecture**

**The spontaneous brain - Key to our self and consciousness?**

Speaker : Georg Northoff (Ottawa Univ.)

Chair : Hajime Mushiake (Tohoku Univ.)

## **Sat. June 17, 2017**

Tetsumon Memorial Auditorium

**9:00 – 12:30**

### **Symposium**

**Disorganized Networks in Parkinson Disease**

Chairs: Ritsuko Hanajima (Tottori Univ.)

Atsushi Nambu (National Institute for Physiological Sciences)

Symposiasts :

**9:00-9:35**

Detecting and interpreting the Parkinsonian oscillations

◎ Izbar Bar-Gad (Bar Ilan Univ.)

**9:35-10:00**

Parkinson's disease as a network disorder

◎ Satomi Chiken (National Institute for Physiological Sciences)

**10:00-10:25**

Clinical symptoms of Parkinson's disease and its related disorders– from a network perspective –

◎ Shunsuke Kobayashi (Fukushima Medical Univ.)

**10:25-10:40**

Coffee break

**10:40-11:05**

Large Scale Cortical and Subcortical Network Phase Derangement: A Novel Systems Approach to Defining Hypo- and Hyperkinetic States.

◎ Kevin W. McCairn (Kyoto Univ.)

**11:05-11:40**

Exploring functions and dysfunctions of the basal ganglia by spiking neural network models

◎ Kenji Doya (Okinawa Institute of Science and Technology Graduate Univ.)

**11:40-12:05**

Dynamics and functions of the cortico-basal ganglia / dopamine system

◎ Kenji Morita (Tokyo Univ.)

**12:05-12:30**

Non-invasive closed-circuit brain stimulation for gait rehabilitation: Clinical application of oscillology in Parkinson patients.

◎ Yasuyuki Takamatsu (Ritsumeikan Univ.)

**12:30-13:30**

Lunch break

**13:30-16:00**

### **Roundtable 1**

#### **Consciousness and Multiple Levels of Non-linear Brain**

Chairs: Shozo Tobimatsu (Kyushu Univ.)

Hiroyuki Ito (Kyoto Sangyo Univ.)

#### **Speakers :**

**13:30-14:00**

“Paradox of slow frequencies”? Neural predisposition and Temporo-spatial theory of consciousness (TTC)

◎ Georg Northoff (Ottawa Univ.)

**14:00-14:20**

The study on complex visual hallucinations in DLB from the viewpoint of hermeneutics with variational model

◎ Ichiro Tsuda (Chubu Univ.)

**14:20-14:30**

Coffee break

**14:30-14:50**

Neural basis of altered consciousness during sleep: insights from effective connectivity and induced high gamma activities

◎ Riki Matsumoto (Kyoto Univ.)

**14:50-15:10**

Motor consciousness and resting state fMRI in primate brain

◎ Takuya Hayashi (RIKEN)

**15:10-15:30**

Temporal and rate coding for non-spatial event sequences in the hippocampus

◎ Satoshi Terada (RIKEN)

**15:30-16:00**

General discussion

**16:10-17:30****Poster session**

Graduate school seminar room (1304), Experimental Research Bldg 13F

**18:00-20:00****Information exchange meeting**

Seiyoken (Hongo Campus, Tokyo University)

**Sun. June 18, 2017**

Tetsumon Memorial Auditorium

**9:30-12:30**

**Roundtable 2**

**Epilepsy as a Window for Neuroscience Research**

Chairs: Riki Matsumoto (Kyoto Univ.)

Atsuo Fukuda (Hamamatsu University School of Medicine)

**Speakers :**

**9:30-10:10**

On the nature of seizures and their biophysical mechanisms

◎ Christophe Bernard (Aix-Marseille Univ.)

**10:10-10:50**

Wide-band EEG by neurons and glia: from clinical observation in epilepsy

◎ Akio Ikeda (Kyoto Univ.)

**10:50-11:00**

Coffee break

**11:00-11:20**

Exploring integrated regulation of membrane excitability through analyses of epilepsy-associated gene mutations

◎ Teppei Akita (Hamamatsu University School of Medicine)

**11:20-11:40**

Mathematical structures in the brain dynamics of epilepsy

◎ Takao Namiki (Hokkaido Univ.)

**11:40-12:00**

Electrocorticographic analysis of spontaneous brain activity in patients with epilepsy

◎ Taira Uehara (Kyushu Univ.)

**12:00-12:30**

General discussion