

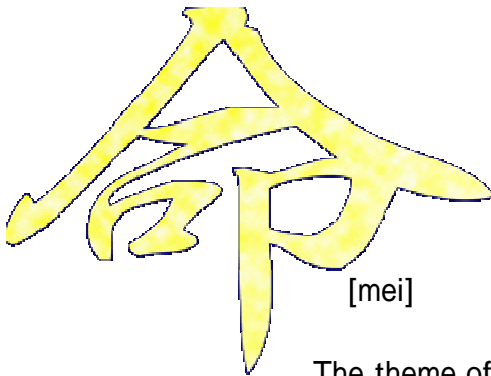
# 第3回北大脳科学研究教育センター シンポジウムのご案内

第3回脳科学研究教育センターシンポジウムを下記と合同主催で開催いたしますので  
多数ご参加くださるようご案内いたします。

脳科学研究教育センター

**主催:** 北海道大学電子科学研究所, 北海道大学脳科学研究教育センター, 理化学研究所脳科学総合センター

## Multi-Institutional International Symposium on



[mei]

**日程:** 12月5日(月) - 7日(水)

**場所:** 北海道大学 学術交流会館 小講堂

The theme of the symposium is symbolized by single Japanese Kanji “命” [mei]

なお、プログラムに変更がある場合があります。当日受付にて配付の Abstracts でご確認ください。

### Program

#### December 5 【12月5日(月)】

##### Opening Remarks

15:30 - 15:40 **Prof. K. Sasaki,** (*Director of RIES*)

##### Special Lectures on New Frontiers in Life Sciences

15:40 - 16:20 **Grillner, S.** (*Nobel Institute for Neurophysiology, Karolinska Institutet, Sweden*)  
"The intrinsic function of a motor system - from ion channels to network and behaviour"

16:20 - 17:00 **Wei, C.** (*Johns Hopkins University School of Medicine, American Academy of Nanomedicine, USA*)  
"New Approach of Nanomedicine in Brain Science"

17:00 - 17:40 **Amari, S.** (*Riken Brain Science Institute*)  
"Brain Science in the 21st Century ---- Toward Mathematical Neuroscience"

Reception 18:00 - 20:00 Restaurant "Elm"

**December 6 【12月6日(火)】**  
**The 3rd RECBS-Hokudai Symposium**  
**【第3回脳科学研究教育センターシンポジウム】**

Opening Remarks :

9:00 - 9:10 **Inoue, Y. (センター長:井上芳郎)** (*Director, Research and Education Center for Brain Science, Executive and Vice-President of Hokkaido University*)

Session I : Development of a functioning brain

9:10 - 9:50 **Taga, G. (招待講師:多賀 巖太郎)** (*University of Tokyo, Graduate School of Education*)  
"Functional brain development in early infancy"

9:50 - 10:30 **Fletcher-Flinn, C.M.** (*University of Auckland, New Zealand*)  
"Dissociation between deficits in explicit procedures and implicit processes in the visual-spatial and the phonological systems during reading acquisition"

10:30 - 10:40 Coffee Break

10:40 - 11:20 **Omori, T. (大森隆司)** (*Hokkaido University, RECBS, School of Information Science*)  
"Analysis of human understanding process on 'others' through the learning of competitive game including pseudo others."

11:20 - 12:00 **Okanoya, K. (招待講師:岡ノ谷 一夫)** (*Riken Brain Science Institute*)  
"Vocal development in birds and humans: Aspects of acoustic and semantic segmentations"

Lunch (12:00 - 13:00)

Session II : Molecular events underlying brain functions

13:00 - 13:40 **Kano, M. (招待講師:狩野 方伸)** (*Osaka University, Graduate School of Medicine*)  
"Modulation of synaptic transmission mediated by endogenous cannabinoids"

13:40 - 14:20 **Kamiya, H. (神谷温之)** (*Hokkaido University, RECBS, Graduate School of Medicine*)  
"Presynaptic mechanisms for synaptic plasticity in the hippocampus"

14:20 - 14:30 Coffee Break

14:30 - 15:10 **Minami, M. (南 雅文)** (*Hokkaido University, RECBS, Graduate School of Pharmaceutical Sciences*)  
"Molecular events underlying pain-induced negative emotion"

15:10 - 15:50 **Tani, T. (谷 知己)** (*Hokkaido University, RIES*)  
"Single-molecule analyses of the interactions of nerve growth factor and the receptors on the membrane of dorsal root ganglion growth cones"

15:50 - 16:00 Coffee Break

Session III : Imaging functioning brain

16:00 - 16:40 **Sawaguchi, T. (澤口俊之)** (*Hokkaido University, RECBS, Graduate School of Medicine*)  
"Development of prefrontal cognitive functions in childhood"

16:40 - 17:20 **Tanaka, K. (招待講師:田中啓治)** (*Riken Brain Science Institute*)  
"Seeing the Visual Brain with High Spatial Resolution"

17:20 - 17:30 Coffee Break

17:30 - 18:10 **Miyauchi, S. (招待講師:宮内 哲)** (*NICT*)  
"Seeing a dreaming brain -Brain activation accompanying rapid eye movements during REM sleep-"

18:10 - 18:50 **Tamura, M. (田村 守)** (*Hokkaido University, RIES*) & *RECBS*,  
"Optical Imaging from Single Molecule to Human Body"

Poster session together with conference dinner (19:00 - ) (Posters are presented in the reception hall throughout the symposium.)

**December 7【12月7日(水)】**  
**The 7th RIES-Hokudai International Symposium**  
**(第7回 電子科学研究所国際シンポジウム)**

Opening Remarks :

9:00 - 9:10           **Sasaki, K.** (*Director RIES, Hokkaido University*)

Session I : The next generation in bio-imaging

9:10 - 9:50           **Miyawaki, A.** (*Brain Science Institute, RIKEN*)  
"New Fluorescent Probes and New Perspectives in Bioscience"

9:50 - 10:30       **Noji, H.** (*Osaka University, The Institute of Science and Industrial Research*)  
"Femtoliter chamber for single molecule detection of biological reaction"

10:30 - 10:40       Coffee Break

10:40 - 11:20       **Sunghoe Chang** (*Gwangju Institute of Science & Technology*)  
"Fluorescence analysis of the multifunctional protein in mammalian synapses."

11:20 - 12:00       **Nemoto, T.** (*NIPS, Department of Cell Physiology*)  
"Sequential exocytosis and vectorial transport in secretory gland cell studied by two-photon microscopy"

Lunchon Seminar : Nikon Bio-imaging Center at Hokkaido University: future prospects (12:00 - 13:00)  
Nagai, T. (Hokkaido University, RIES)   Okugawa, H. (Nikon Instrument Company)

Session II : Self-organization of spatiotemporal order: multi-disciplinary approaches

13:00 - 13:40       **Honma, S.** (**本間さと**) (*Hokkaido University, RECBS, Graduate School of Medicine*)  
"Visualizing clock's tick by bioluminescent reporter: Molecular clock work in the central circadian pacemakers"

13:40 - 14:20       **Kondo, S.** (*Nagoya University, Graduate School of Science*)  
"Interaction network among the pigment cells generates the skin patterns of animals."

14:20 - 14:30       Coffee Break

14:30 - 15:10       **Nishiura, Y** (*Hokkaido University, RIES*)  
"Entropy and Sensitivity of Particle Patterns in Dissipative Systems"

15:10 - 15:50       **Hauser, M.** (*Otto-von-Guericke-Universität Magdeburg, Germany*)  
"Oscillatory dynamics of enzyme and enzyme model systems: The dynamics, their origins, and possible biological functions"

Closing :