

NIPS—JST International Workshop

—From photon to mind —

[Advanced Nonlinear Imaging
& Fluorescence-based Biosensors]

April 18th–19th, 2008

Okazaki Conference Center

(7-min walk from Higashi–Okazaki Station of Meitetsu Railroad)

Admission fee: free

Registration: March 1st to April 4th

<http://www.nips.ac.jp/hsdev/iws2008>

日時:2008年4月18日(金)–19日(土)

場所:岡崎カンファレンスセンター

参加費:無料

ホームページおよび参加登録

<http://www.nips.ac.jp/hsdev/iws2008>

参加登録 3月1日—4月4日

講演予定者

Helmchen, Fritjof (Switzerland)

Murphy, Timothy (Canada)

Portera-Cailliau, Carlos (USA)

Belousov, Vsevolod (Russia)

河西春郎(東京大学)

永井健治(北海道大学)
平等拓範(分子科学研究所)
菊地和也(大阪大学)
喜多村和郎(東京大学)
岡部繁男(東京大学)
和気弘明(生理研)
渡辺正勝(基生研)
小澤岳昌(東京大学)

Program

(Tentative)

April 18th (Friday)

12:00–13:00 Registration

13:00–13:05 Opening Remark (Okabe S)

JST Workshop

Advances in Non-linear Imaging I (Chaired by Kasai H)

13:05–13:50 **Portera-Cailliau C** (University of California, Los Angeles)

In vivo two-photon imaging of neuronal structure and activity in developing neocortex

13:50–14:20 **Kitamura K** (University of Tokyo)

Targeted whole-cell recordings from unlabeled neurons in vivo

14:20–15:05 **Helmchen F** (University of Zurich)

3D imaging modes for in vivo 2-photon microscopy

15:05–16:00 Coffee Break & Poster Session

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Advances in Non-linear Imaging II (Chaired by Kitamura K)

16:00–16:30 **Wake H, Nabekura J** (National Institute for Physiological Sciences)

Microglial surveillance of synapses in the normal and damaged brain

16:30–17:10 **Okabe S** (University of Tokyo)

Imaging glia–synapse interactions

Recent Advances of Laser & Photoactivated Probe (Chaired by Nemoto T)

17:10–17:50 **Taira T** (National Institute for Molecular Science)

17:50–18:30 **Watanabe M** (School of Advanced Sciences, Graduate University for Advanced Studies [SOKENDAI])

Prospects of pin-point photoregulation of biological processes using transfected photoactivated adenylyl cyclase (PAC), the microbial blue-light sensor flavoprotein with intrinsic effector function

Reception 18:30–

April 19th (Saturday)

Fluorescence-Based Biosensor (Chaired by Watanabe K)

8:50 – 9:30 **Nagai K** (Hokkaido University)

Direct measurement of protein dynamics in living cells using a rationally designed photoconvertible fluorescent protein

9:30 – 10:10 **Kikuchi K** (Osaka University)

Direct measurement of protein dynamics in living cells using a rationally designed photoconvertible fluorescent protein

10:10–10:50 **Ozawa T** (Tokyo University)

Visualization of biomolecules in live cells using split-reporter reconstitution analysis

10:50–11:35 **Belousov V** (Institute of Bioorganic Chemistry)

Imaging of intracellular hydrogen peroxide signaling with genetically encoded fluorescent indicator HyPer

11:35–13:00 Poster Session & Snack

Advances in Nonlinear Imaging III (Chaired by Nabekura J)

13:00–13:45 **Murphy T** (University of British Columbia)

Stroking the Synapse: Insight into Ischemic Damage and Recovery from In Vivo Two-Photon Imaging of Individual Synapses and Circuits

13:45–14:25 **Kasai H** (University of Tokyo)

Two-photon imaging, uncaging and photoactivation of dendritic spines

14:25 – 14:30 Closing Remark (Nabekura, J)