

The 6th CiNet Conference :
Brain-Machine Interface -Medical Engineering based on Neuroscience
February 5 – 7 at CiNet, Osaka, Japan

Program: (subject to change)

Wednesday, February 5

13:00 Registration

13:30 Opening: Toshio Yanagida, Director of CiNet

<Session 1> Fundamental BMI and Neuroscience 1

13:35 **Yukio Nishimura, Tokyo Metropolitan Institute of Medical Science**
“Bypassing damaged neural pathways via neural interfaces”

14:20 **Steven M Chase, Carnegie Mellon University**
*“Neural manifolds: from basic science to practical improvements
in brain-computer interfaces”*

15:05 Coffee Break

<Session 2> Fundamental BMI and Neuroscience 2

15:20 **Hirokazu Takahashi, The University of Tokyo**
“Decoding of Darwinian neural activities in the auditory cortex”

16:05 **Vikash Gilja, University of California, San Diego**
“Brain Machine Interfaces: Concept to Clinic”

16:50 Coffee Break

17:05 **Andrew Schwartz, University of Pittsburgh**
“Useful Signals from Motor Cortex”

17:50 Poster Session

18:20 Welcome Party (Poster Session continues.)

Thursday, February 6

<Session 3> Fundamental BMI and Neuroscience 3

9:30 **Isao Hasegawa, Niigata University**
“Decoding visual object/memory information from electrocorticography”

10:15 **Kazutaka Takahashi, University of Chicago**
*“Changes in cortical network connectivity
with long-term brain-machine interface exposure after chronic amputation”*

11:00 Coffee Break

- 11:15 **Masamichi Sakagami, Tamagawa University**
*“Value decoding from Electro-Cortico-Graphic signals
in monkey prefrontal cortices”*
- 12:00 Luncheon Seminar by NTT Data Institute of Management Consulting, Inc.

<Session 4> Clinical BMI 1

- 13:20 **Masayuki Hirata, Osaka University**
“A fully-implantable wireless brain machine interfaces: towards clinical trials”
- 13:55 **Leigh R Hochberg, Brown University**
“BrainGate Pilot Clinical Trials: Toward Restoring Communication and Mobility”
- 14:40 Coffee Break

<Session 5> Clinical BMI 2

- 14:55 **Kyosuke Kamada, Megumino Hospital/ATR**
*“Combination of functional decoding and monitoring using ECoG
for Neurosurgery”*
- 15:40 **Takufumi Yanagisawa, Osaka University**
“Clinical application of ECoG/MEG decoding”
- 16:15 Coffee Break
- 16:30 **Guillaume Charvet, Clineatec**
*“Implantable Epidural Brain Machine Interface to control a 4-limb exoskeleton
for movement compensation of tetraplegic patients”*
- 17:15 Poster Session
- 17:45 Closed Session (Poster Session continues)

Friday, February 7

<Session 6> Neural Device 1

- 10:00 **Tsuyoshi Sekitani, Osaka University**
*“Brain-implanted flexible and stretchable integrated circuit system
for comprehensively monitoring brain activities from cerebral cortex
to deep brain regions”*
- 10:45 Coffee Break
- 11:00 **Chong Xie, Rice University**
“Pushing limits of intracortical neural electrodes”
- 11:45 Luncheon Seminar by NTT Data Institute of Management Consulting, Inc.

<Session 7> Neural Device 2

- 13:00 **Thomas Stieglitz, University of Freiburg**
“Miniaturized neural implants for interfacing with the brain”
- 13:45 **Takeshi Kawano, Toyohashi University of Technology**
“3D micro/nanoneedle and 2D flexible film for neural interfaces”
- 14:30 Coffee Break

<Session 8> Neural Device 3

- 14:45 **Takashi D.Y. Kozai, University of Pittsburgh**
“New Interface biology and Novel brain stimulation technology”
- 15:30 **Takafumi Suzuki, CiNet, NICT**
*“Brain-machine interface based on electrocorticogram
-system development towards 4000ch recording-”*
- 16:05 Closing: Takafumi Suzuki, Meeting Chair