

**2<sup>nd</sup> UK-Japan Workshop on the Brain-Machine Interface**  
Institute of Neuroscience, Newcastle University  
25-26 February 2010

**Thursday 25<sup>th</sup> February 2006**

10.00-10.30 Registration and coffee on arrival

10.30-11.00 Wellcome and introductory remarks

**Professor Colin Ingram** (Director, Institute of Neuroscience, Newcastle University)

**Professor Mitsuo Kawato** (Director, ATR Computational Laboratories)

11.00-11.30 **Professor Kevin Warwick** (Department of Cybernetics, University of Reading) - *The Cyborg Experiments*

11.30-12.00 **Professor Takeshi Kawano** (Department of Electrical and Electronic Engineering, Integrated Circuit Group (ICG), Toyohashi University of Technology) - *Integrated silicon microprobe/tube arrays for neural interface*

12.00-12.30 **Professor James Fawcett** (Cambridge Centre for Brain Repair and Cambridge Nanoscience Centre, University of Cambridge) – *A microchannel interface for peripheral nerve repair*

12.30-13.30 Lunch

13.30-14.00 **Professor Hiroshi Yokoi** (Interdisciplinary Information Studies, The University of Tokyo) - *Mutually adaptable prosthetic hand and power assist system for BMI*

14:00-14:30 **Dr. Etienne Burdet** (Department of Bioengineering, Imperial College, London) - *Human-machine interactions and robot-assisted rehabilitation*

14:30-15.00 **Professor Meigen Liu** (Department of Rehabilitation Medicine, Keio University School of Medicine) *Brain-machine interface technology opens new frontiers of rehabilitation.*

15.00-15.30 Tea

15.30-16.00 **Dr. Iasonas Triantis** (Institute of Biomedical Engineering, Imperial College, London) – *Selectivity in Peripheral Neural Interfacing*

16.00-16.30 **Professor Takafumi Suzuki** (Graduate School of Information Science and Technology, University of Tokyo) – *Design of novel flexible electrodes for long term implantation*

16.30-17.00 **Dr. Andrew Jackson** (Institute of Neuroscience, Newcastle University) - *Bidirectional BMI and intraspinal microstimulation*

17.00-17.45 Presentations on UK-Japanese collaborative activities:

**Mr. Takeshi Sekiguchi** Deputy Director, Japan Society for the Promotion of Science

**Mr. Kevin Knappett** First Secretary, Science and Innovation, British Embassy, Tokyo

**Mr. Tomohiko Arai** First Secretary, Science and Technology, Japanese Embassy, London

18.00-2200 Reception at Great North Museum: Hancock

**Friday 26<sup>th</sup> February 2006**

09.00-09.30 Coffee available

09.30-10.00 **Dr. Evelyne Sernagor** (Institute of Neuroscience, Newcastle University) – *Carbon nanotube electrodes for epiretinal implants*

10.30-11.00 **Professor Isao Hasegawa** (Niigata University) – *The basis of the ECoG signal in visual cortex*

10.30-11.00 **Dr. Patrick Degenaar** (Institute of Biomedical Engineering, Imperial College) - *Optogenetic retinal prosthesis*

11.00-11.30 Coffee Break

11.30-12.00 **Dr. Naotaka Fujii** (Brain Science Institute, RIKEN) - *Long-term asynchronous decoding of arm motion using electrocorticographic (ECoG) signals in monkey*

12.00-12.30 **Professor Bernard Conway** (Bioengineering Unit, Strathclyde University) – *Multidimensional BCI control derived from surface EEG potentials and applied through a virtual environment*

12.30-13.00 **Professor Toshiki Yoshimine** and **Professor Masayuki Hirata** (Department of Neurosurgery, Osaka University Medical School) *ECoG Brain-Machine Interface for Motor Prosthesis*

13.00-14.00 Lunch

14.00-14.30 **Dr. Damian Coyle** (Intelligent Systems Research Centre, University of Ulster) - *A multistage biosignal processing framework for motor imagery-based non-invasive Brain-Computer Interface communication and control*

14.30-15.00 **Dr. Yoshihiro Inoue** and **Dr. Akihiro Ishikawa** (Shimadzu Corp.) *Non-invasive brain-measurement technology for BMI: The development trend of functional near-infrared spectroscopy (fNIRS)*

15.00-16.00 Open discussion session

16.00-16.30 Concluding remarks  
Professor Tadashi Isa (National Institute for Physiological Sciences)  
Professor Stuart Baker (Institute of Neuroscience, Newcastle University)

16.30 Close