

# MEMORANDUM OF UNDERSTANDING (“MoU”)

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**Date:** 12<sup>th</sup> February 2009

## **Parties**

1. Advanced Telecommunications Research Institute (ATR), Kyoto, represented by Professor Mitsuo Kawato
2. The National Institute of Physiological Sciences, Okazaki, represented by Professor Tadashi Isa
3. The University of Newcastle upon Tyne represented by Professor Colin Ingram  
Professor Stuart Baker

## **Recitals**

- A. Technological advances in both brain science and engineering are opening opportunities for direct interaction between the nervous system and physical devices. Research of this Brain-Machine Interface (BMI) has the opportunity to generate devices both for the benefit of able bodied people and for patients who suffer with some impairment of brain function. The field of BMI research includes implants that can be used to restore lost function of the nervous system, non-invasive devices that can be used to assist humans to perform particular functions, and methods for measurement and interpretation of brain signals that can be used to operate devices.
- B. Both the UK and Japan have research groups which are working on various aspects of BMI research. These projects include work on devices that assist or restore movement, retinal implants to restore sight, cochlear implants to improve or restore hearing, and brain stimulators to correct abnormal activity. This work is supported by funding from various government agencies, charitable organisations, universities and commercial companies.
- C. The Parties, who are actively fostering the development of BMI research in their respective countries, undertake to promote cooperation between groups in the UK and Japan in order to facilitate progress in BMI research. This Memorandum of Agreement is hereby entered into to foster increased international cooperation and to build stronger partnerships in BMI research.

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Within the field of Research of the Brain-Machine Interface, opportunities for the following general forms of co-operation will be explored (“the Purpose”):

## **1. Scope of Cooperation**

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### **1.1 Joint Meetings and Exchange Visits**

Where mutually beneficial, the Parties will seek opportunities to host joint meetings at which ideas and results may be shared between participants in the common goal of promoting BMI research. Exchanges of researchers who are able to explore common objectives and conduct research is also to be encouraged. The Parties will help identify suitable collaborative partnerships in their respective countries and will endeavour to identify and help secure third party funding to enable facilitating visits to take place.

### **1.2 Joint Research**

In order to foster international cooperation and collaboration, the Parties aim to increase participation in mutually beneficial joint-research projects. Where the opportunities arise,

the Parties will encourage joint submissions for funding from national and international agencies to support collaborative projects. Detailed arrangements for each project will be specified in separate agreements between the collaborating groups.

- 1.3 All parties understand that all financial arrangements will have to be negotiated and will depend on the availability of funds. Each Party shall be responsible for and bear all of its own costs, risks and liabilities arising out of its obligations and efforts in accordance with the provisions of this MoU. This MoU is not intended to create any obligations for breach of which any damages may be sought by or awarded to either Party
- 1.4 The Parties intend to co-operate in good faith to achieve the Purpose. This does not create any legally binding rights or obligations but reflects the intentions of the Parties to work together in good faith to promote and monitor the agreed Purpose. Individual contracts may be developed to enable the delivery of the agreed Purpose.
- 1.5 This MoU is not intended to be and shall not be construed to create or give effect to a joint venture, association, partnership or other business organisation or agency arrangement and neither Party shall have the authority under this MOU to bind the other without the prior written approval of the other Party.

## 2. Amendments

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This MoU can be amended by mutual written consent of the parties.

## 3. Term of the Agreement

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Following agreement, this MoU shall be reviewed after 3 years and shall, subject to mutual agreement to renew, terminate after 5 years. If this MoU remains dormant for three consecutive years it will be deemed to have lapsed. Any party may terminate the MoU at any time by mutual consent or by six months' notice in writing.

### Signed

Professor Mitsuo Kawato  
Director, ATR Computational Neuroscience Laboratories, Kyoto

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Signature

Professor Tadashi Isa  
Head, Division of Behavioural Development  
National Institute for Physiological Sciences, Okazaki

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Signature

Professor Colin Ingram  
The University of Newcastle upon Tyne  
Director, Institute of Neuroscience

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Signature

Professor Stuart Baker  
The University of Newcastle upon Tyne  
Professor of Movement Neuroscience

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Signature