



## **TIME: Tele-imaging In Medicine**

*A cyber Bridge interfaces China with Europe on  
Collaborative Health Care*



### **Minutes of TIME Kick-off meeting and Steering Committee Meeting**

**April 1, 2005,**

**The Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG**

**Present:** Dr. Egils Stumbris (Latvia), Dr. Richard Bayford (UK), Dr. Stylianos Hatzipanagos (UK), Dr. John Clark (UK), Dr. Robert Pleass (UK), Dr. Stephen Batty (UK), Prof. Theodore Kalampoukis (Greece), Prof. Qiang Lin (China), Prof. Shuqian Luo (China), Prof. Guohong Zhou (China), Ms Ping He (China), Dr. Xiaohong Gao (UK)

**Apologies** from: Prof. Norman Revell, Prof. Colin Tully, Dr. Adrian Carpenter, Dr. Tim Fryer

The meeting started with the welcome address by **Gao** and followed by the introduction of each participant.



**Gao** presented the first year's activities for the TIME project and summarised the tasks that have been done and needed to be doing in the next few months. The major activity to be happened in the first year is the MIT2005 (Medical Imaging and Telemedicine) conference to take place in China, Wuyi mountain, in August 16-19, 2005. It requires all the partners' effort to make it success. It was emphasised that this year is the 30<sup>th</sup> anniversary of establishment of diplomatic relation between EU and China. The MIT2005 conference would be one of the activities to mark the event.



**Luo** then introduced research activities carried out in his Medical Imaging labs. His talk included

**1. Digital Human Project**

**2. Medical Image Processing**

- **Digital Atlas of Human Brain**
- **Multi-modality Medical Image Registration**
- **Matching Human Brain Sulci**
- **FEM-based Brain Tumor Growth Simulation**

**3. Work under development**

- **Image-guided surgery planning**
- **Diffusion Tensor Image Analysis**
- **Nose-ear visualization and application**



**Clark** described the researches being carried out in Wolfson Brain Imaging Centre where he is the EPT director, including

**Imaging Equipment**

Positron Emmission Tomography

General Electric PETtrace Cyclotron

General Electric Advance PET Scanner

Magnetic Resonance

3Tesla Bruker

Computing

1Gb network

32node PC cluster

Approx 100Tb storage with tape robot back up



Kalampoukis talked about his work on

**IntCultNet, Intercultural Learning in the Internet**

**Text Categorization,**

**e-Lexicon,**

**and**

**TIME**



**Lin** introduced his University and his Bio-Engineering Institute where he is the director. Then he focused on the MIT2005 conference which he is co-chairing and one of the leading organisers. He has distributed the “Call for Papers” to the following societies:

- ◆ **China Medical Instrument Society**
- ◆ **Fujian Medicine Information Society**
- ◆ **Relevant Company and Hospital on Biomedicine Engineering from Guangdong Province**
- ◆ **The above-mentioned personnel are professor, engineer, doctor and postgraduate mostly**

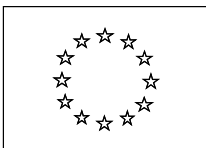


Ping described the progress on her research for the TIME project on Colour Reproduction for Telemedicine.

a Middlesex University website

 <b>EU-CHINA</b> 中欧建交30周年 30th Anniversary of Diplomatic Relations 1975-2005	Brain Database	Capital University
	TIME conference	Capital University (English)
	Dr. X. Gao homepage	Fuzhou University
	WBIC (Cambridge University)	Capital@image.mdx.ac.uk
	Athens UEB	China.TIME conference

**Batty** is a newly employed research fellow working on TIME project. He introduced the server which is currently running at Middlesex University, London, UK.



**Pleass**, the Research Manager from Middlesex University talked about the reporting of the project, and the budget of the project. In particular, he emphasised the matching funding which required all the partners’ attention. The first report to the EU Commission will be June 1, 2005.



In the afternoon, **Dr. Egils Stumbris** from Latvia gave a speech on Tele-radiology project he is currently in charge in Latvia. The project included partners from

E. Stumbris, MD, Riga Municipal Agency “Telemedicine Centre “,Riga, Latvia;

Z. Baidekalna, Riga Municipal Agency “Telemedicine Centre “, Riga, Latvia;

I. Eglajs, Latvian Development Institute, Riga, Latvia;

B. Pure, Latvian Development Institute, Riga, Latvia;

W. Ullrich, PhD, European Academy of Interdisciplinary Medicine, Berlin, Germany;

B. Slabbaert, European Academy of Interdisciplinary Medicine, Uttwil, Switzerland;

### **The following issues were discussed at the afternoon meeting:**

- Set-up guidelines. Some suggestions were format, system architecture, data transfers, etc by **Richard and Theodore**.
- Potential clinical benefit at the end of project.
- Compliance of the system.
- Education needed for the development of such system by **Stylianios**.
- Speed + bandwidth +data when images are transferred remotely. Some initial stage tests are planned between China and UK to transfer images.

### **Agreed changes of project activities:**

- **Activity 5:** The initial plan was to visit two Chinese partners immediately after the conference MIT2005. However, one partner, Prof. Luo will be in USA at that time and could not be back. It is therefore agreed that the Activity 5 will combine with Activity 7 in the second year when European partners will China for background study. Initial image exchange will be dealt with using network services. Also during the MIT2005 conference, some of the image information exchange will be performed.
- **Activity 3:** In order to set up European server and to develop a prototype of tele-imaging system, exchange visits between UK and Greece partners (in total 4 visit per year for the first year) are planned form the original proposal. University and Hospital of Geneva from Switzerland has developed a telemedicine system. It was therefore agreed that one exchange visit from both UK and Greece will be used to visit Switzerland in order to learn from the existing systems. The visit is planned on June 10, 2005 by the three partners, **Gao, Clark, and Kalampoukis** . The correspondent from Switzerland is Dr. Henning Muller.

- First Two year Activities for TIME project.

Year 1	Open the Dialogue												
Activity (Ac)	Month 1	2	3	4	5	6	7	8	9	10	11	12	Implementing body
Ac 1: Kick-off meeting	█												Lead <b>MU</b> – host, all partners taking part.
Ac 2: Open the dialogue --- conference on Tele-imaging and telemedicine				█									Lead <b>BEI</b> – host All partners taking part in organisation and participating
Ac 3: Set-up internet server	█												Lead <b>MU, CUMS</b>
Ac 4: Marketing the project.				█									Lead <b>MU, CUMS, AUEB</b>
Ac 5: Initial Image Data and Information Exchange								█					Lead <b>BEI, CUMS</b> Active role – <b>MU</b> , All partners participating as well as associates
Ac 6: Evaluation and first-cut report										█			Lead <b>BEI, MU</b> All partners participating Observation by <b>SC</b> and invited experts

**Note:** **MU:** Middlesex University, London, UK.

**UC:** University of Cambridge, Cambridge, UK.

**AUEB:** Athens University of Economics and Business, Athens, Greece.

**BEI:** The Biomedical Engineering Institute, Fuzhou University, Fuzhou, China.

**CUMS:** Capital University of Medical Science, Beijing, China.

**SC:** steering committee.

<b>Year 2</b>	<b>Promoting Advanced Medical Imaging</b>												
<b>Activity (Ac)</b>	<b>Month 1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>Implementing body</b>
Ac 4: Marketing the project.	[Redacted]												Lead MU, CUMS, AUEB
Ac 7: Background Study	[Redacted]												Lead UC, MU, AUEB Active role – BEI, CUMS
Ac 8: Development of training programme	[Redacted]											Lead MU, Active role – BEI, AUEB, CUMS	
Ac 9: Promoting knowledge, Seminars and short courses				[Redacted]									Lead UC, MU, AUEB All partners participating
Ac 10: Framework of internet-based tele-imaging system	[Redacted]												Lead MU Active role -- AUEB
Ac 11: Further Information Exchange and Quality Assurance Meeting								[Redacted]					Lead MU, AUEB Observation by SC and invited experts Participating by partners and associates
Ac 12: Second-cut report										[Redacted]			Lead MU, UC, AUEB All project staff contributing