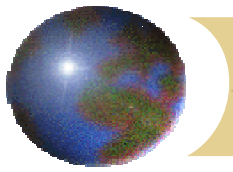


Neuroinformatics and Data Sharing

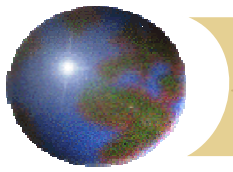
**National Communication Group
of Neuroinformatics of China**

Yin Ling



*In 2001,
Dr. Stephen
H. Koslow,
director of
the Office of
NI of NIMH,
was invited
to visit
China.*





No. 168 Xiangshan Science Conference

- ❖ **Xiangshan Science Conference was hold under the topic of Human Brain Project (HBP) and NI from Sep. 6 to 8, 2001.**
- ❖ **The conference determined that acupuncture and Chinese cognition were the first two projects for China to join the HBP.**
- ❖ **There are 3 gronts seported. about of HBP & NI by our government**



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institute of Health
National Institute of Mental Health
6001 Executive Blvd.
Bethesda, Maryland 20892

July 16, 2001

Minister Cheng Jiepei
The People's Republic of China
The Ministry of Science and Technology
15 B. Fuxing Road
Beijing, China 100862

Dear Minister Honorable Cheng:

I am writing to you to inform you and request the support of my invitation to Dr. Tang Yiyuan and his colleagues (Drs. Tang Xiaowei and Yin Ling) to join the Organization for Economic Cooperation and Development's, Global Science Forum - Neuroinformatics Working Group that began in 2000. This activity is highly significant and will have a lasting impact on future Neuroscience research. It will facilitate a faster understanding of the brain and its development in health and disease. I think it is crucial for Dr. Tang Yiyuan and his colleagues to participate in these meetings, as a representative of China will have an important and significant impact on the shape and direction of this global neuroinformatics effort. You can read the terms of a memo, since we are well along in the process and have only three working group meetings left to achieve success.

A representative from China will have an important and significant impact on the shape and direction of this global neuroinformatics effort. You can read the terms of a memo, since we are well along in the process and have only three working group meetings left to achieve success.

I look forward to hearing from you at your earliest convenience about your participation.

Sincerely,

Stephen H. Koslow, Ph.D.
Associate Director
Director, Office on Neuroinformatics

Enclosure
(Proposal for a OECD Global Science
Forum Working Group on Neuroinformatics)

NIMH
National Institute of
Mental Health

附件 2

中华人民共和国科学技术部

THE MINISTRY OF SCIENCE AND TECHNOLOGY
THE PEOPLE'S REPUBLIC OF CHINA

15B, Fu-xing Road,
Beijing, China 100862
P. R. China

September 17, 2001

Stephen H. Koslow, Ph.D.
National Institute of Health
National Institute of Mental Health
6001 Executive Blvd.
Bethesda, Maryland 20892

Dear Dr. Stephen H. Koslow,

It was my pleasure to receive your letter regarding China's participation in the Human Brain Project and Neuroinformatics. I agree with your suggestion to have Drs. Tang Yiyuan, Tang Xiaowei and Yin Ling joined with you as representatives for China in the OECD GSF-NI-WG and their related meetings. I believe their participation will further the interaction between China and the world in this important research area and promote the Human Brain Project and Neuroinformatics in China. I have attached the contact information on these three scientists so that you can be in touch with them.

I hope to stay in touch with you as we develop this activity in China. My best wishes to you.

Sincerely,

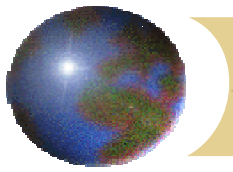
Cheng Jiepei, Ph.D.

*China participated in the HBP
and OECD-GSF-NI work group*



In 2001, China took part in the 4th OECD-GSF-NI work group in Sweden.





Guideline of HBP and NI

- ⊕ Resource Activities
- ⊕ Standards of data sharing
- ⊕ Distribution of neuroinformatics tools
- ⊕ Computational methods for modeling brain functions
- ⊕ Create the Neuroinformatics Portal and network
- ⊕ Establish a knowledge management system



International Neuroinformatics Network - China Brain Bank

10/24/2006

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Brain Bank database

★ Brain Bank database

📁 Treatment of Encephalopathy combined use of traditional Chinese medicine and western medicine

- Cerebrovascular disease
- Frequently occurring sclerosis
- Parkinson's disease
- Alzheimer's disease
- Neural pathology
- Medicament
 - Neural recovery

📁 Acupuncture neuroimaging

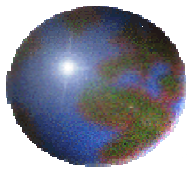
- Acupuncture neuroimaging
 - PET acupuncture neuroimage
 - fMRI acupuncture neuroimage

Brain Bank Cooperating Network



America U. S. A (Group Leader) Canada Mexico

Europe Finland Switzerland Poland Italy
Norway Denmark Holland Germany Switzerland

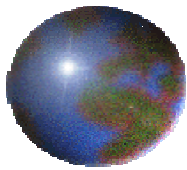


Brain Bank database

- ★ Brain Bank database
- Treatment of Encephalopathy combined use of traditional Chinese medicine and western medicine
 - Cerebrovascular disease
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 - Alzheimer's disease
 - Neural pathology
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 - Neural recovery
 - Acupuncture neuroimaging
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 - PET acupuncture neuroimage
 - fMRI acupuncture neuroimage

China, Japan, Korea Brain Bank Cooperating Network





International Neuroinformatics Network - China Brain Bank

0/24/2006

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Brain Bank database

★ Brain Bank database

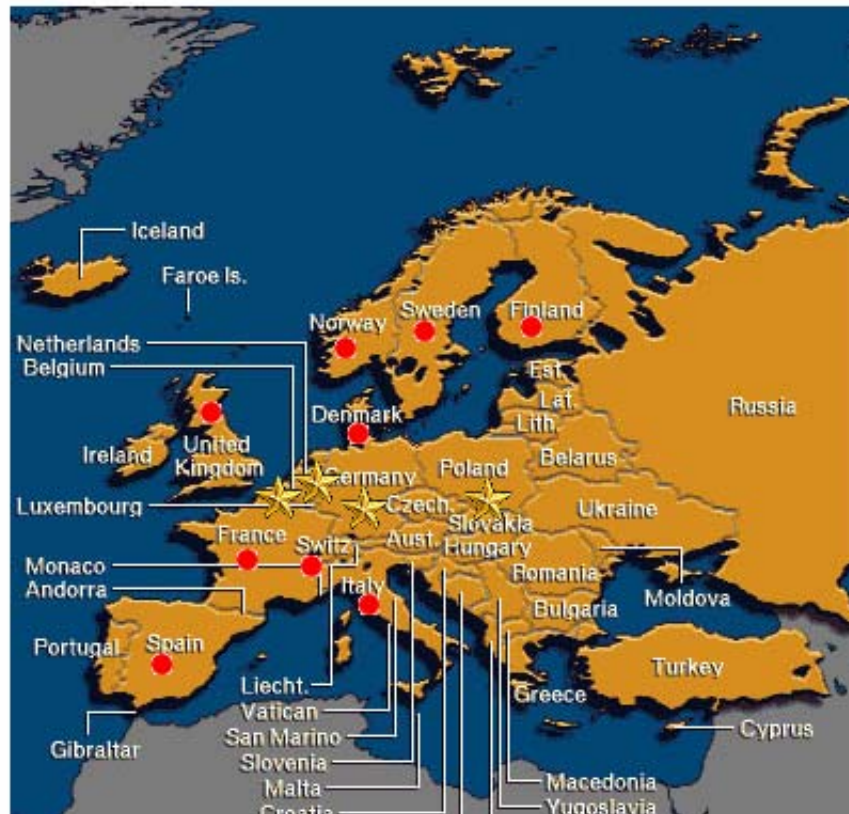
📁 Treatment of Encephalopathy combined use of traditional Chinese medicine and western medicine

- Cerebrovascular disease
- Frequently occurring sclerosis
- Parkinson's disease
- Alzheimer's disease
- Neural pathology
- Medicament
 - Neural recovery

📁 Acupuncture neuroimaging

- Acupuncture neuroimaging
 - PET acupuncture neuroimage
 - fMRI acupuncture neuroimage
 - Research on Zusanli acu-point fMRI acupuncture neuroimage of rats
 - Research on animal acupuncture experiments
 - Genetic expression change under Shiqiuqiu after Zusanliacu-point acupuncture

Europe Brain Bank Cooperating Network





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[Treatment for Encephalopathy utilizing a combination of](#)

[traditional Chinese medicine and Western medicine](#)

[Clinical drugs](#)

[Neuroinformatics literature](#)

[Digital neuroanatomy](#)

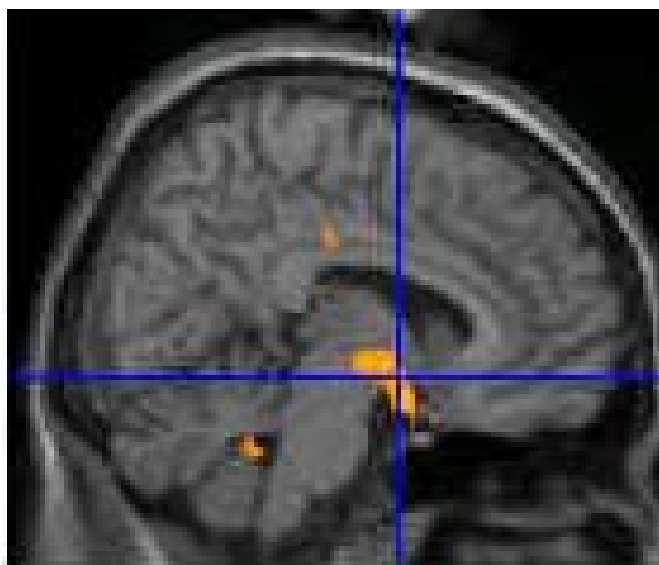
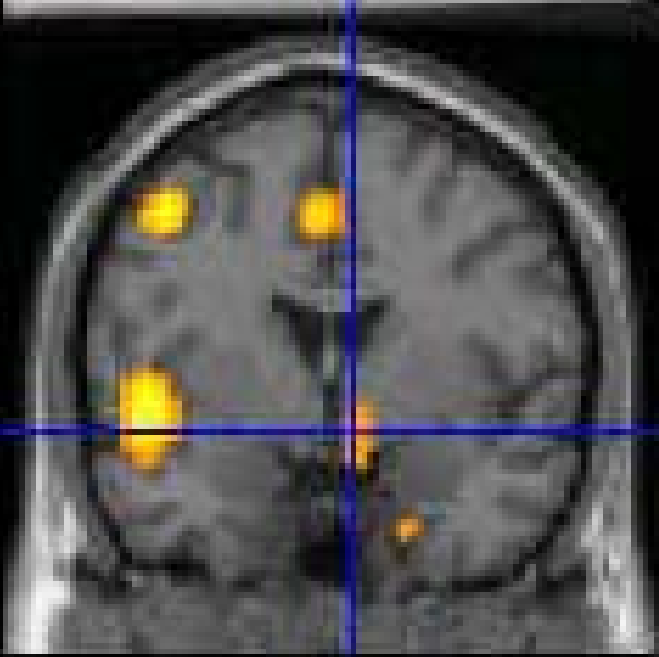
[Experimental methods](#)

数据库介绍

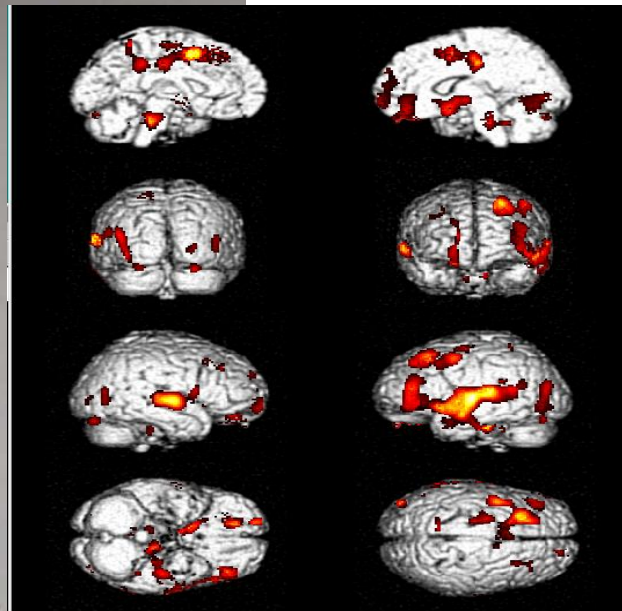
BrainBank Database: In accordance with the overall arrangement of OECD-GAF-NI team and with the support of "International Neuroinformatics Network-China"—a major international program of the 973 Plan, the database was co-developed by the National Contact Team at the Neuroinformatics and Computer Network Information Center of the Chinese Academy of Sciences. It includes five databases—acupuncture neuroinformatics, treatment for encephalopathy by the combined use of traditional Chinese medicine and Western medicine, Chinese language cognition and neuroimaging, artificial-intelligence and high-function computation, and a brain-computer interface. The major task of Brain Bank is to collect and arrange neuroinformatics data resources that have eastern characteristics, and to provide the resources to the entire world through the international neuroinformatics network.

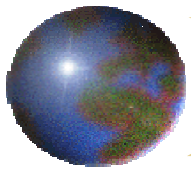
■ [Experts](#)

This database collects information about experts in neuroinformatics teams in China. They are engaged in neural sciences, digital neuroanatomy, neurophysiology, cognitive psychology, neural electrophysiology, neural biochemistry, molecular biology of nerve

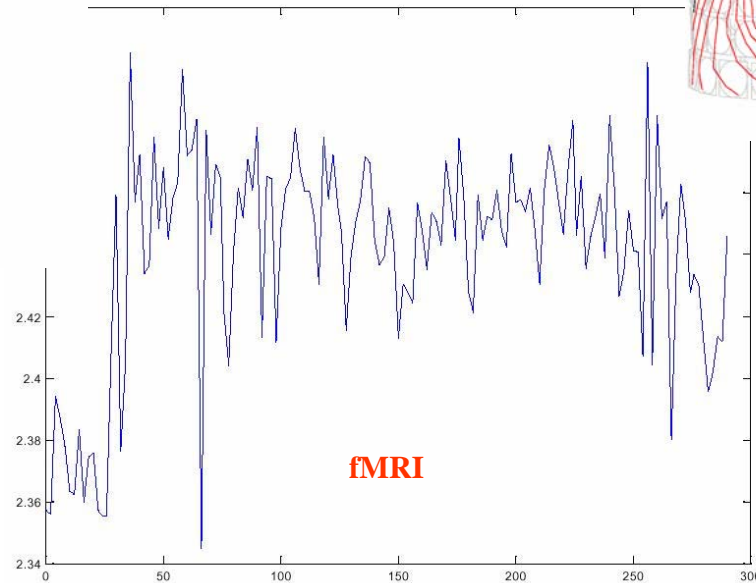
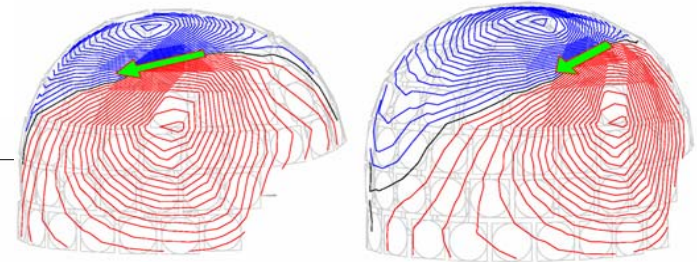
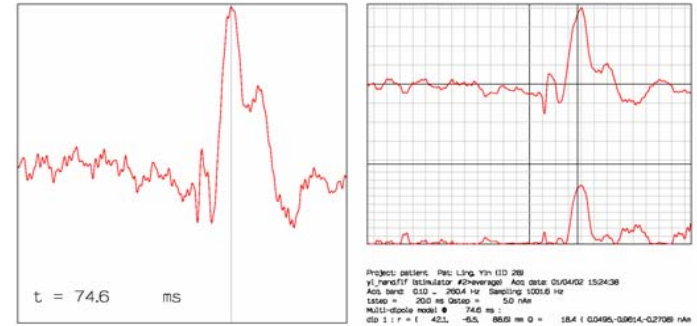
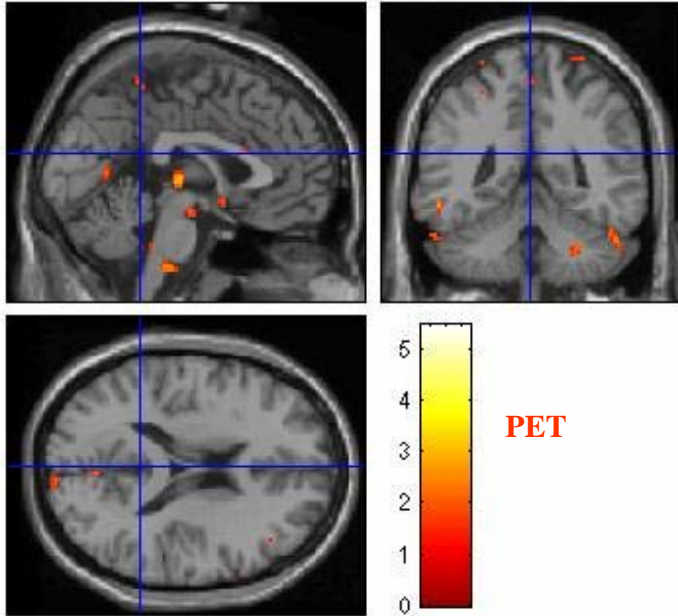


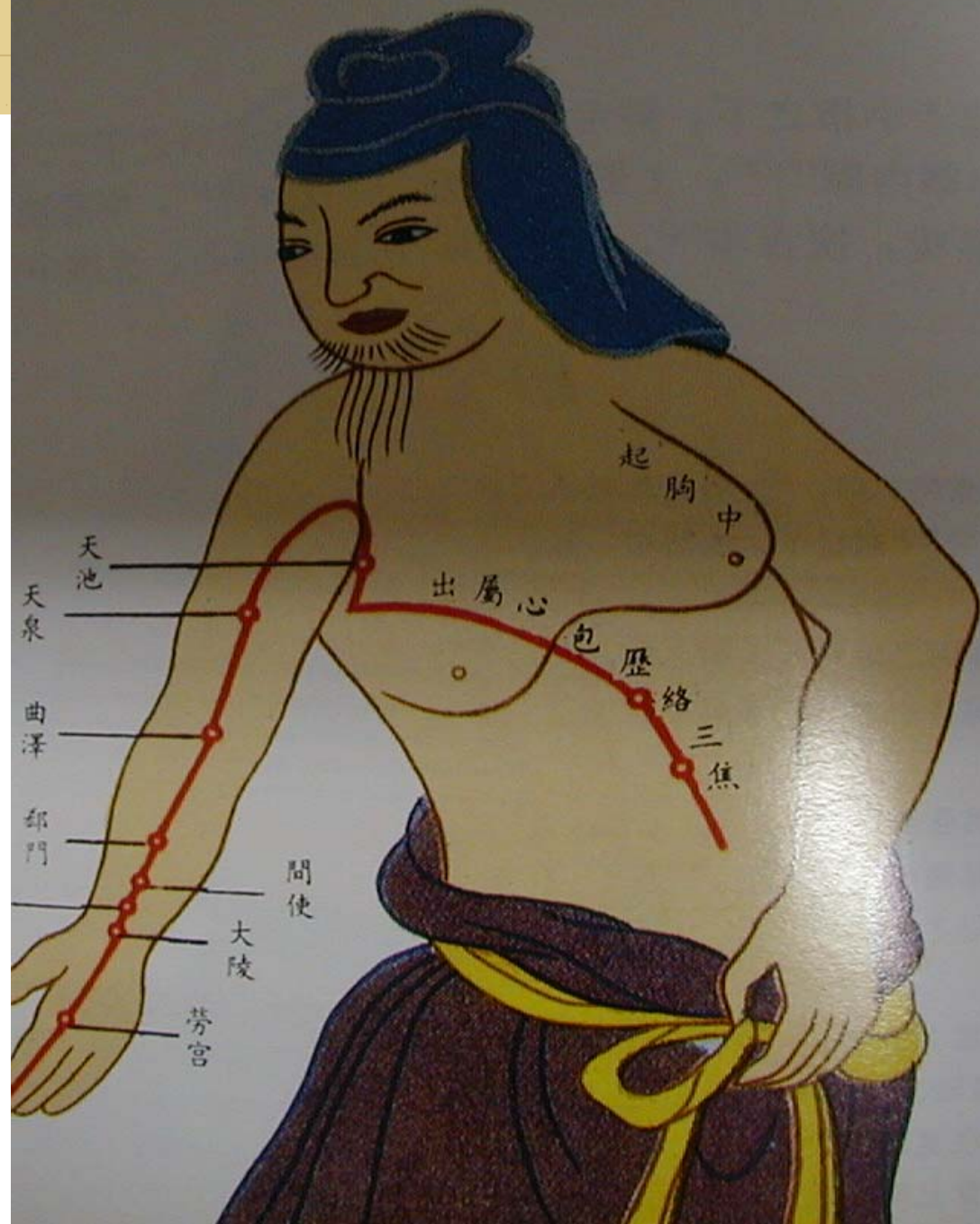
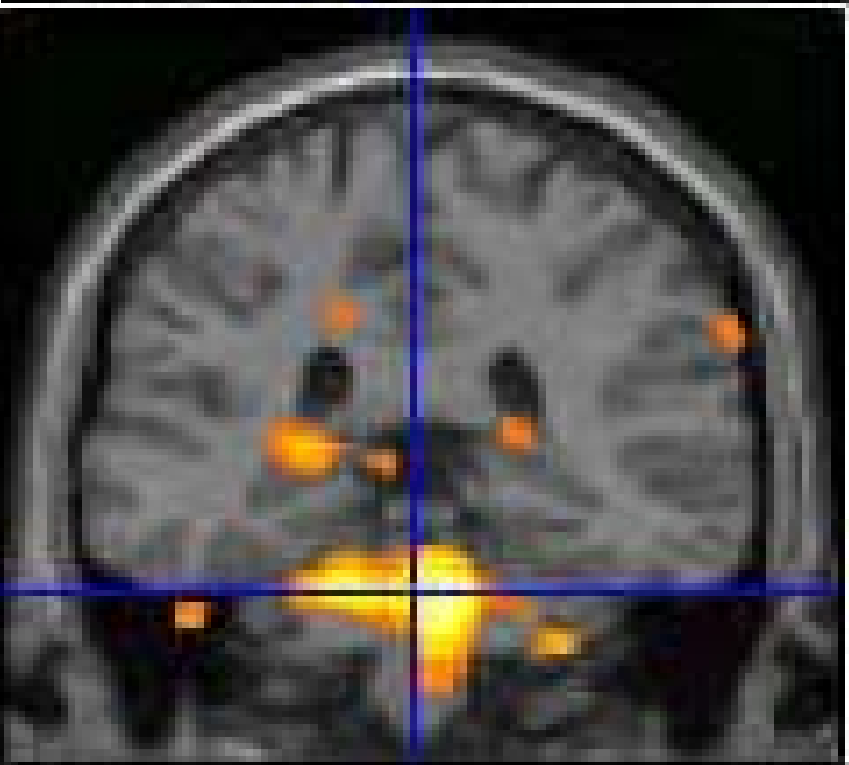
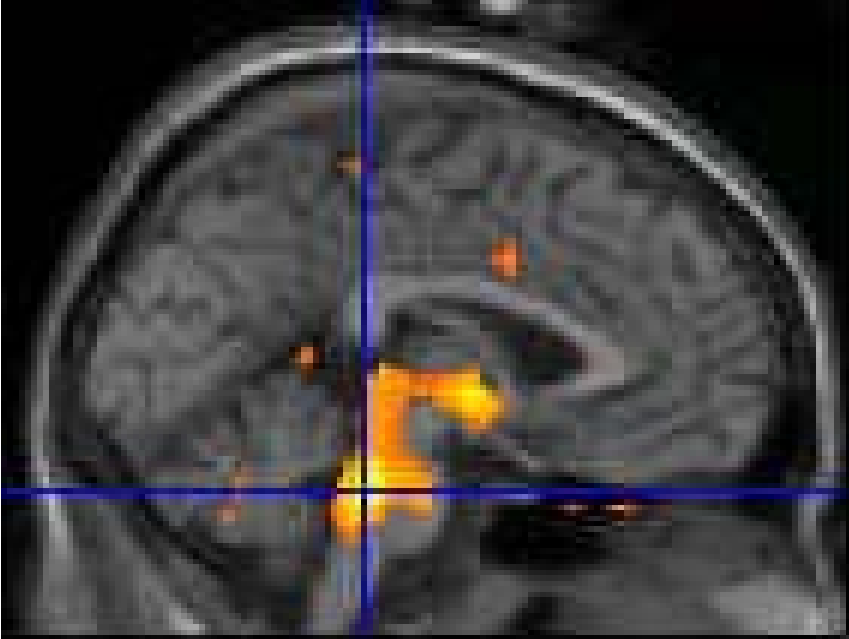
足陽明胃經之圖
凡四十五穴
左右共九十六

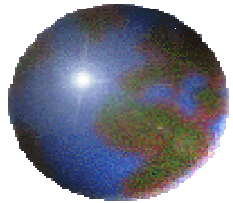




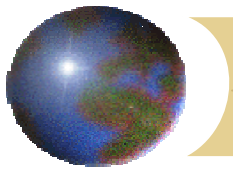
The results of fMRI, PET and MEG (acupuncture the right acupoint zusanli)





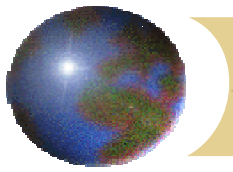


*U.S. – China Roundtable on Scientific Data
Cooperation
Organizing Meeting
Beijing, CHINA
Breakout Session on Health and
Biomedical Data*



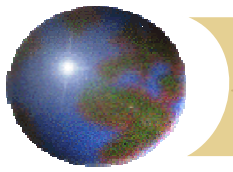
Introductions- American

- American representatives described specific opportunities for collaboration, including the National Institute of Health's programs to support Chinese scientists at NIH and NIH grant-making programs; the National Cancer Institute's cancer Biomedical Informatics Grid (caBIG) project that offers informatics infrastructure, tools, and data resources freely available; the National Institute of Standard and Technology's Standard Reference Data Program. NIH and NCI policies and practices on data sharing are also proposed for consideration or use.



Introductions - Chinese

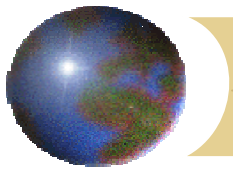
- China has achieved fast progress in medical data sharing. It has established protective system, standard and regulatory system, resource planning system and platform-support system for that purpose. The Data Sharing Network for Medical and Health Sciences under construction consists of four scientific data centers and about 300 databases. The Data Center of Traditional Chinese Medicine has apparent regional characteristics



Most useful scope and focus for future

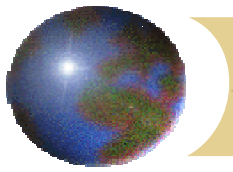
We propose a pilot project through which all the issues and opportunities can be explored. It could be modest, but could pursue the following:

- Identify issues related to data structure and standards
- Identify issues of database construction
- Identify issues related to interoperability
- Issues related to intellectual property, both of the software and of the data content.



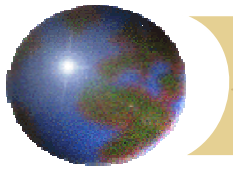
Highest priority - 2

- Suggest that MOST support a pilot project on medical data sharing.
- Set up a China-US work group under CODATA to explore specific issues. Establish it at next CODATA meeting. But must also look at policy issues as well as technical issues, including intellectual property issues and privacy/security issues.



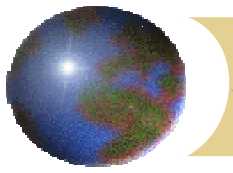
Key governmental and non-governmental organizations

- China: MOST, National Working Group of Data Sharing for Medicine.
- National Institutes of Health and individual institutes



Measures of success

- ✚ The schedule of meetings will show progress.
- ✚ Develop a project that is only possible through collaboration.
- ✚ Continuing open dialog to build trust.



Thanks!