

**China-U.S. Relations: Past, Present, and Future**  
*Annenberg Presidential Conference Center at the George Bush Presidential Library Center*  
*College Station, Texas USA*  
*November 5-8, 2003*

**Summary of Research Roundtable Sessions**

**Abstract:**

At the China-U.S. Relations Conference held on November 5-8, 2003, a series of research roundtable sessions provided open forums for scientists from the People's Republic of China and the United States to discuss the newest scientific and technological advances important to both countries. The roundtable sessions addressed the critical role of scientific and research collaboration between the two countries, effective methods of scientific and technological cooperation, and major obstacles in scholarly exchanges. To effectively pursue follow-up activities to the conference, a joint working committee on collaborative scientific research is under discussion.

**Summary:**

Research Roundtable Organization

The first two days of the conference were devoted to discussions and presentations on diplomatic, security, and economic relations. The last two days of the conference focused on building partnerships in science and technology and promoting research and educational exchange. This latter part of the conference consisted of primary sessions on Building Partnerships in Science and Technology; Models for Future Cooperation: Agriculture, Education, and Energy; and Promoting Educational Exchange and Research in the China-U.S. Relationship. In addition to the primary sessions, delegates attended 13 parallel research roundtable sessions and summary sessions.

Roundtable session topics were selected by a rigorous submittal and review process. In March 2003, after a call-for-proposals was issued, Texas A&M faculty members and their Chinese collaborators submitted 30 proposals. An Executive Committee working group selected 13 proposals based on the relevance, impact, merit, and credentials of the sessions. The selected roundtable sessions covered a wide range of topics. They are as follows:

1. Altered Landscapes and Environmental Responses to Transformations (ALERT)
2. Food Safety: The Rural Imperative
3. Higher Education During a Time of Transition
4. Information Technology and Applications
5. Integrating Science, Education, and IT in Cross-Cultural Settings
6. New Venture Growth Strategies in China's High Technology Industries: Internal Growth vs. Alliances with Foreign Direct Investment
7. Opportunities and Challenges in Doing Business and Trade in China-U.S.
8. Plant Molecular Biology and Biotechnology
9. Reducing the WMD Threat on the Korean Peninsula and from Terrorism
10. Research and Development on Energy Production
11. SARS: Crisis and Opportunity of Global Public Health
12. Scientific Development of Traditional Chinese Medicine to Address the Aging World
13. Sustainable Community Planning, Design and Construction

Each session was co-chaired by U.S. and Chinese scholars.

### Research Roundtable Discussions

Approximately 250 scientists and scholars from 20 U.S. universities and 16 Chinese institutions participated in these roundtable sessions. The discussions in the roundtable sessions were active, open, and thorough.

- Many of the research roundtable discussions focused on the newest scientific and technological advances that were of interest to both countries. For example:
  1. Issues related to natural and human induced alteration of earth systems: interaction and coupling human, biological, and physical systems; use of water and its allocation; protecting and preserving critical habitat; human built environments and alternation of natural cycles; preservation of biodiversity; biogeochemistry.
  2. Safety and security of food and agro-product supply chains on a farm-to-table continuum; flow of commodities within and between the two countries.
  3. Research and training opportunities for all aspects of higher education administration: academic affairs, research development, student affairs management, university governance, curricular change, and policy.
  4. Information technology and applications: new design methodologies for computer-controlled systems, algorithm design for large scale problems, computer aided design of electrical circuits.
  5. Cultural impacts on IT-based science teaching and learning in K-12, higher education, and the public through on-line media; investigation of how information technology can increase involvement and access in the scientific process in communicating science across culture, while exploring approaches and societal impacts.
  6. Roles of new ventures in economic and social development; entrepreneurial opportunities created by China's economic transition from a centrally planned economy to a market economy; growth strategies of new technology ventures in China.
  7. Dilemmas and directions of China-U.S. economic relations; Chinese financial system and its reforms; implications of RMB appreciation and currency stability; foreign direct investment in China and the U.S.; poverty and urbanization; China-U.S. trade and business development.
  8. Crop biotechnology; Modification and transfer of genetic information in crops (specifically rice and cotton); use of biotechnology for conferral of pest and disease resistance.
  9. Analysis of the current situation with regard to nuclear weapons in the Democratic People's Republic of Korea (North Korea): cooperative strategies for reducing the threat of WMD proliferation, security assurance and verification, international regime analysis and its possible application to the Korean issue, political and media framing of North Korean Nuclear issue, anti-terrorism studies.
  10. Development and utilization of energy; utilization of coal and consumption and importation of oil; supply security; best practices for coal extraction; strategic utilization of oil reserves; natural gas development and transportation.
  11. Issues arising from the recent SARS epidemic: biosecurity and preparedness with regard to emerging infectious diseases; successes and concerns with regard to global collaborative research processes; public health and infectious disease in a "smaller" world; economic impact; identification of positive impact of proactive communication to the general public, the health care work force, and the institutions providing care.
  12. Scientific efficacy of Traditional Chinese Medicine in western medicine for treating chronic diseases.
  13. Issues concerning sustainable urbanism and sustainable community design surrounding the rapid development and transformation of Chinese cities: community design for long-term community health, both social and economic, infrastructure planning and integrated assessment of environmental and other quality of life issues; affordable housing and green building design; construction process management including proper engineering standards, monitoring and assessment with application of information technologies.
- Scholars also examined various mechanisms of collaboration and explored how to improve the effectiveness of cooperative research activities. Since 1972, when the China-U.S. relationship was restored, research collaborations between the two countries have taken on various forms. While visit-

exchanges, joint workshops and symposia, and joint projects have been the typical means of collaboration, the scale and range of this cooperation have been accelerating. For example, joint research and development facilities (e.g., laboratories) have been established. The Chinese Ministry of Science and Technology set up a cooperative research park in the U.S. in 2002. A team of U.S. and Chinese scientists have obtained support from the U.S. National Science Foundation and the National Natural Science Foundation of China to develop a virtual science museum that will allow students of all ages to visit the on-line museum from anywhere and at anytime.

- Conference delegates discussed obstacles to China-U.S. research collaborations and explored solutions to address these issues. Some of the major problems that were discussed include: recognition of international collaborations, intellectual property, funding, and visas for scientists and scholars. Delegates strongly recommended the establishment of a China-U.S. working group to develop formal mechanisms for promoting research and scholarly activities between China and the U.S. Furthermore, it was suggested not only to enhance formal links between the two governments but also to establish and nurture informal connections between industry and academic entities in the two countries as grassroots solutions can often be effective and helpful.
- A recurring theme throughout the discussions of many scholars was the broad importance of research collaborations between China and the United States. Scientific exchanges and cooperation have not only helped both countries in making technical advances; these exchanges also have played a critical role in improving overall relations between the two countries, which ultimately can improve and stabilize the world's political climate.

#### Follow-up Activities

The conference has generated new momentum in scientific and technological collaborations between Chinese and U.S. scholars and researchers. Both sides are actively pursuing the ideas generated during these research roundtable sessions. The creation of a China-U.S. working group is under discussion. This group would develop formal mechanisms for accelerating research and scholarly activities between the two countries.

Numerous visits, bi-lateral agreements, joint publications, workshops, and proposals have resulted from the discussions. The following is a partial list of collaborative activities currently planned by Texas A&M faculty with Chinese partners:

- Established the International ALERT Federation
- Establishing the Center of Research for Food and Agro-product Safety and Traceability
- Developing a training program for American school teachers to learn about Chinese language, history, and culture
- Developing a framework theory for integrating science learning across cultures, including overcoming the content, language and technical barriers in science communication
- Hosting visit of Virtual Science Museum team
- Publishing a book on "Entrepreneurship and Innovation in China's High Technology Industries," based on contributions from the discussions
- Planning a research forum on "New Venture Strategies in China's High Technology Industries"
- Submitted proposal on cotton molecular breeding to China's Ministry of Science and Technology
- Established Sino-U.S. Center on Plant Stress Biology based in Shanghai
- Establishing a joint research laboratory with SINO-PEC
- Extended cooperation with the Chinese National Petroleum Corporation (CNPC)
- Creating International Center for Research and Development of Ophthalmic Drugs from Traditional Chinese Medicine
- Co-sponsoring a symposium on healthy communities
- Participating in China's Ministry of Science and Technology research park conference
- Continuing the Dragon Star Program
- Organizing an Advanced Workshop on Computational and Computer and Sciences
- Establishing SINO-US STAR Newsletter