



THE PACIFIC RIM FORUM'S SECOND ASIA SCIENCE-BASED INNOVATION, LIFE SCIENCES & TECHNOLOGY SUMMIT

**TO BE CONDUCTED BY SPECIAL ARRANGEMENT IN SHANGHAI'S RENOWNED
SCIENCE & TECHNOLOGY MUSEUM (PUDONG)
SUNDAY, SEPTEMBER 11 TO TUESDAY, SEPTEMBER 13, 2005**

CHINA IN THE GLOBAL LIFE SCIENCES LANDSCAPE

(2005 – 2008)

**COMMERCIALIZING THE EMERGING 'RED, WHITE & GREEN'
BIOTECHNOLOGIES IN ASIA**

**HOST SPONSOR
BURRILL & COMPANY**

(Confirmed Program at April 15, 2005)

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Institute of Genetics and Developmental Biology, Chinese Academy of Sciences

Biotechnology Institute, Chinese Academy of Agricultural Sciences

Institutes of Biological Sciences, Shanghai



THE PACIFIC RIM FORUM'S SECOND ASIA SCIENCE INNOVATION SUMMIT

Executive Summary:

The formal announcement of the final sequencing of the full human genome in mid-2003 marked yet another major milestone in the emergence of life science as an industry. Many corporate strategists now firmly believe that just as the 19th Century is viewed as the Age of Chemistry, and the 20th Century as the Age of Physics, the 21st Century is clearly set to become established as the Age of Biology.

Advances in bio-science research are indeed already catalysing an industrial convergence within – and across – the three core science disciplines of chemistry, physics and biology that will have – and already are having – profound implications for the global economy. The agricultural sector, computer companies, drugmakers, chemical processors and the health industry are all beginning to be drawn into the new bio-science industry. Gas to liquids, fuel cell and hydrogen technologies are also on the cusp of transforming the fossil fuel industries just as crop engineering and emerging genetic modification techniques, which enhance productivity without jeopardizing ecological security, shall be doing for both agriculture and the food industry.

For almost 200 years, scientific research and innovation with direct industry implications have evoked the images of the laboratory, the microscope and the established methodologies of “scientific method”. Information technology and other emerging technological advances are now taking much of this science out of the laboratory. Indeed the three largest industries in the world – agriculture, health and energy – are already poised on the very cutting edge of such science-based transformation. A more insightful segmentation of these different industry implications we believe can be succinctly best summarized as:

- The “Red” Biotechnologies – human healthcare (e.g. therapeutics, diagnostics, drug delivery, cell and gene therapies etc., ultimately leading to the Health & Wellness industry’s “holy grail” of **personalized medicine**)
- The “White” Biotechnologies – Industrial manufacturing processes (energy, biomass conversion, biomaterials, bioprocesses etc.)
- The “Green” Biotechnologies – agriculture (including food, feed, fibres, transgenics etc.)

High performance computing has revolutionized bioscience in bringing about scientific discovery of such importance and scale that many believe it could quickly dwarf the information revolution of the past twenty years. Indeed that very industry (it’s technologies & processes) along with nanotechnology are fast becoming the key “enablers” that are driving this very rapid convergence. Already technologists tout many major achievements and the biosciences are expected to return the favor to the technology industry as it devours increasing quantities of computing power to leverage the wealth of data being generated for further advances. Indeed scientists are already looking beyond the body and the test tube – realms previously described as ‘in vivo’ and ‘in vitro’ – towards the computer screen to increasingly solve commercial bioscience puzzles ‘in silico’.

Many countries in Asia/Pacific are also fast applying these latest life sciences research and techniques, many already well-learned from the West, to begin to aggressively pursue these new applied research areas. Singapore, Australasia, Japan, South Korea, Malaysia and particularly China, are establishing their own centers of technical excellence to build a scientific infrastructure base to compete with – and more often complement – the manifold private sector and institutional initiatives so vigorously underway currently in the United States and Europe.

With a plentiful supply of smart young scientists at home (and with many more overseas); a growing interest in both corporate and institutional support from home and abroad; such science-based innovation and, as importantly, some key agriculture and energy applications are increasingly considered to be on the brink of a boom in Northeast Asia, and in China in particular.

To manage this rapidly moving transition successfully, companies and policy-makers will likely have to change the way they currently strategize about many aspects of their businesses. **Asia’s Second Science Innovation Summit** shall provide attendees with a unique Global, Asian and Chinese perspective of these very same implications. To be conducted in close collaboration with the highly respected Burrill & Company, many of the world’s key biotechnology players shall be with us, as well as many of Asia/Pacific’s and China’s leading corporate and scientific practitioners and policy leaders. We hope you shall also consider becoming part of this select invitation-only interactive peer group that shall be strictly limited to 300 senior delegates to assist in better strategizing the important commercial implications for all these rapidly evolving developments in the fastest growing region – and country – in the world.



DAY ONE'S KEY FOCUS / THEMES: CHINA'S INNOVATION – DRIVEN LIFE SCIENCES INDUSTRY IN THE GLOBAL LANDSCAPE

MONDAY, SEPTEMBER 12

8:00 – 8:45am *Registration and Refreshment at Science & Technology Museum, Pudong
(15 minutes from reserved Hotels by complimentary coach)*

Session 1
8:45 - 9:30am

Official Summit Opening & Welcoming Remarks

Speakers:

- **Alan Carroll**, Executive Chairman, Pacific Rim Forum
- **Zhou Yupen**, Vice Mayor of Shanghai (responsible for Industry and Science & Technology)

Session 2
9:30 – 10:45am

The Global Life Sciences Landscape and China's Positioning (Mid 2005)

Special Keynote Speaker: • **G. Steven Burrill**, Chief Executive Officer,
Burrill & Company, San Francisco

Key Respondent: - **Jonathan Wang**, Gen. Mgr Greater China, Burrill & Company,
Board Director of Bay Helix

10:45 – 11:15am *Refreshment and Networking Break*

Session 3
11:15 - 12:30pm

A Focus on 'Red.' (Human Healthcare – Therapeutics, Diagnostics, Medical Devices, Drug Delivery, Cell & Gene Therapy) : Key Global/Regional/China Commercial Trends and Developments

Chairman: • **Peter Farrell**, Chairman, President & CEO, Resmed Inc, San Diego

Speakers:

- **Lorenz Ng**, Vice President, Research Alliance & Business Development
Eli Lilly, Asia/Pacific, Shanghai
- **Keith Williams**, CEO Proteome Systems, Sydney/Boston

Chinese Panel:

- **Wei Huacheng**, Beijing Pharmaceuticals
- **Yi Li**, Sinogen
- **Wang Haibo**, Fudan Zhangjiang Bio-Pharmaceutical

Session 4
12:30 – 2:00pm

Luncheon **Special Keynote Luncheon Speaker**

Biopharma Sector Profile of the major Asian economies (at end 2004)

- **The Regional Clustering of the Bio-Pharmaceutical Industry (and China)**

Michael Enright, Sun Hung Kai, Professor of Business, The University of Hong Kong

Session 5
2:00 – 3:15pm

Biopharmaceutical Clustering in China

Chairman: • **Alan Carroll**, Executive Chairman, Pacific Rim Forum

Speakers:

- **Yuying Shang**, Vice Mayor, Shanghai Pudong
- **Hongguang Wang**, Director General, China National Center for Biotechnology Development, Ministry of Science & Technology
- **Shenzhen Bureau of Science and Technology, (BOST)**
- **Guangzhou Bureau of Science and Technology, (BOST)**



DAY ONE'S KEY FOCUS / THEMES: **CHINA'S INNOVATION – DRIVEN LIFE SCIENCES INDUSTRY IN THE GLOBAL LANDSCAPE**

Session 6
3:15 - 4:30pm

**Commercializing the Key Emerging 'Red, White & Green' Biotechnologies : A Focus on 'Green' (Agriculture – food, feed, fibres, transgenics)
The Key Current Global/Regional/China Commercial Trends and Developments**

Contributing Resources (*An Interactive Science Innovation Summit Dialogue*)

Global Resource : • **Jerry Caulder**, Acknowledged Agriculture/Food thought leader and US Board Director, San Diego

Regional Resource: • **Andrew Powell**, ARB Group, Singapore

Chinese Resource: • **Jun Yu**, Associate Director, Institute of Genomics and Bioinformatics, Chinese Academy of Sciences, Beijing and Senior Research Scientist, University of Washington Genome Center (Seattle), USA

Key Respondent: • **Terry Cutler**, Board Member, CSIRO, Australia

Session 7
4:30 – 5:45pm

Commercializing the Emerging 'Red, White & Green' Biotechnologies: A Focus on 'White' (Industrial Biotechnology – Energy, Biomass Conversion, Bio-Materials, Bio-processing): The Key Global, Regional and Chinese Commercial Trends and Developments

Speakers:

Global Resource: • **Jim McIlvenny**, CEO, Greater China, The Dow Chemical Company, USA

Regional Resource: • **Brian Anderson**, CEO, Anderson Energy (HK) and former Chairman, North Asia, Shell Corporation

Chinese Resource: • **Zhou Dadi**, China Energy Research Institute, Beijing

Key Respondent: • To be confirmed

6 :15 – 7 :00pm

Pre-Dinner Cocktails and Networking (at Hotel)

Session 8
7:00 – 9:15pm

Official Summit Dinner

Special Keynote Science Summit Dinner Speaker:

Building an Innovation – Driven Industry

J. Craig Venter



DAY TWO'S KEY FOCUS / THEMES: FROM INNOVATION TO BUSINESS

TUESDAY, SEPTEMBER 13

7:00 – 8:15am

Session 9 Breakfast Panel Discussion at Hotel (Optional)

Technology Innovation currently underway in China:

- **Gene Therapy**, (Saibaino)
- **Stem Cell Research**, (TheraCells)
- **Biochips**, (Capital Bio)

Session 11

8:30 – 9:15pm

Special Keynote Speaker

Wang Xiaodong
Scientific Research in China Today

Director of the National Institute of Biological Sciences, Beijing
(Member of the National Academy of Sciences, USA)

9:15 – 10:30am

Bio-Science in China and the World: The Current state of Play
(Systems Biology)

- **Reg Kelly**, Former Executive Vice-Chancellor, University of California, San Francisco (UCSF) & Professor of Biochemistry & Bio-physics

Speakers:

- **Chen Zhu**, Member & Vice President, Chinese Academy of Sciences, Beijing
- **Chen Zhangliang**, President, China Agricultural College, Beijing
- **Pei Gang**, Director of the Shanghai Institutes for Biological Sciences and Professor of Shanghai Institute of Biochemistry & Cell Biology and Member of the Chinese Academy of Sciences, Shanghai

10:30 – 11:00am

Refreshment & Networking Break

11:00 – 12:30pm

Session 12 Entrepreneurship and Commercialization:

- **Technology from Chinese research institutes to companies**
- **Technology from the West to China**
- **The Role of Generics and TCM**

Speakers:

- **Ge Li**, Wuxi PhamaTech
- **Jing Chen**, Capital Bio
- **Ying Luo**, Shanghai Genomics
- **Rongxing Gan**, Shanghai Institute of Biological Sciences



DAY TWO'S KEY FOCUS / THEMES: **FROM INNOVATION TO BUSINESS**

Session 13

Luncheon

12:30 – 1:45pm

Bio-Partnering

Current “Best in Class” Global Models, Practices and Mechanisms
Robert Lee Kilpatrick, Technology Vision Group, USA

Session14

2:00 – 3:00pm

Multinationals & Bio-Science in China:

- **Why is China important?**
- **What types of business opportunities are present?**
- **Opportunities & Challenges**

Speakers:

- **Mick Yates**, Chairman, Living Cell Technologies and Immediate Past Company Group Chairman, Johnson & Johnson Asia Pacific, UK
- **Chris Savoie**, President, CEO, Gene Networks, Japan/Cambridge
- **Bryan Walser**, VP Corporate Strategy, Chiron Corp. USA

Session15

3:00 – 4:00pm

China's Current Legal, Policy and Regulatory Environment

- **IP Protection**
- **SFDA process**
- **GLP and GMP**
- **Technology Transfer**

Speakers:

To be Identified

Session16

4:00 – 5:00pm

China's Current Financing & Bio-Investment Realities

- **VC investment**
- **M&A**
- **Exit**
- **Currency Issues**

Speakers:

- **Jonathon Wang**, Burrill & Company
- **Pingao Wang**, Shanghai Venture Capital
- **Two other resources to be identified**



DAY TWO'S KEY FOCUS / THEMES: **FROM INNOVATION TO BUSINESS**

Session17
5:00 – 6:00pm

Three New Life Sciences Business Models
(3 Global/China Business Initiatives of significance to be more fully explored)

Session 18
6:00 – 6:30pm

Summary & Conclusions

Speakers:

- Alan Carroll, Executive Chairman, Pacific Rim Forum
- Selected Summit Resources

6:30pm onwards

Closing BBQ Event