

## Meeting report: CABS Expert Forum on China Biotechnology

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The last few years have seen some major developments in the fledgling biotech industry in China. The pharmaceutical R&D outsourcing sector in China has experienced some rapid, qualitative and quantitative leaps in a very short period of time, while the nascent drug discovery and development sector is also gaining momentum, attracting significant venture capital investment and scientific influxes. To bring the latest development in the China biotech arena to CABS members, the Science and Technology Committee assembled an all-star team of experts who have been involved in these ground-breaking developments in China to share their first-hand experience and insight about the current state and future trends in the exciting biotech arena in China. Sixteen experts, including executives of outsourcing and biotech companies in both China and the U.S., as well as representatives from the investment and legal communities, participated in some lively discussions in front of approximately 200 attendees in Genentech Hall of the UCSF Mission Bay campus.

The forum discussed the current state and future trends in two key areas: the biotech/pharmaceutical outsourcing business and the drug discovery and development business, with the latter focusing on the entrepreneurship and investment aspects.



The forum was highlighted by a keynote speech titled "Asia R&D: a dynamic picture" by Dr. Steve Yang, VP, Head of Research, Asia, Pfizer Global R&D. Dr. Yang described a fast-growing biotech and pharmaceutical industry in Asia, especially in China, Singapore and India. The development of Shanghai Zhangjiang Biotech Park was highlighted as an example of how a rural area like Pudong could have a complete face change in 10 years. Currently Zhangjiang is home to many big-name companies such as Pfizer, Roche, GlaxoSmithKline, Eli Lilly, AstraZeneca, and Novartis, as well as many native grown CROs and biotech companies.

The keynote speech was followed by a very interactive panel discussion on the state and opportunities in the outsourcing arena, moderated by Dr. Yiyou Chen, CABS Science Committee co-chair. The panelists were Dr. Steve Yang (VP, Head of Research, Asia, Pfizer Global R&D), Dr. Zhenhai Shen (Senior Manager, Global R&D, Genentech), Dr. Hai Mi (Vice President, Wuxi Pharmatech), Dr. Kewen Jin (CEO, Charles River Lab (China)), Dr. Alex Wu, (CEO, Crown Bioscience Inc.), Dr. Chen Mao (President, Shanghai Medicilon), Ms. Shuang Zhang (CEO, Suzhou Research Ltd.), and Dr. Zhu Shen (CEO, BioForsight). After briefly introducing themselves and their companies, the panelists presented some lively and highly interactive discussions, based on the questions from the moderator and the audience. The discussions focused on the issues related to outsourcing to China and can be summarized into four areas:

- 1) Concerns over intellectual properties from the clients and how to address such concerns. IP protection has been an issue for many companies from the Western world. CRO companies took several measures to assure the clients with high confidence in confidentiality and IP protection. There has also been increasing pressure for the government to further optimize the system to protect the clients. It will be up to individual client to work together with the CROs to assess risk vs. benefit.
- 2) Challenges facing the CROs for better communications with their clients. There



have been some issues with culture differences and language barriers between CROs and their Western-world clients. However, these issues have been eased and will be more so with increasing numbers of returnees and more frequent interactions between countries and business partners. More and more people with Western trainings and experience are now in upper-level positions and play more prominent roles in these organizations. This trend will go further with the fast-pace growth of the industry.

3) How CROs will evolve and how to tackle challenges arising from rapid growth. The panelists all agreed that the biggest challenge was to identify and retain the talents. Increasing competitions in the industry, in particular among the CROs, can only get tougher. Hiring and retaining talents has become a key factor for continued success of any company under the current environment. In addition, the business model and focus may not stay constant. Diversification and more specialization could represent two different directions for the future growth.

4) What are the next frontiers for outsourcing beyond chemistry. Several trends were mentioned during the discussion, such as biology, target discovery, preclinical and clinical development, diagnosis, vaccines, and medical devices. The panel discussed the challenges in expanding into such areas, many of which are data based (rather than product based as in the business of chemistry service) and would require the CROs to work hard to produce quality data and gain the trust of their clients. The discussion led to a common scenario: stay with science, go with what you are good at, and follow your heart.

Following the first panel discussion, Dr. Charles Hsu, Venture Partner, Bay City Capital, delivered the second keynote speech titled "Life sciences VC: 10 years of rapid change". He gave a retrospective overview of the biotech industry and the VC climate in the early days and why he ventured into funding Biotechs in China. Dr. Hsu started with a bit history of biotech development in China. Using his own experience as a pioneer in this area, he compared the rapid growth of biotech in China to the semiconductor boom in Taiwan in the 1960s and the current dominant telecom outsourcing in India. Rapid economic growth in China opens up ample opportunities for VCs and the biotech industry. There have been plenty of success stories such as Wuxi Pharmatech. An increasing num-

ber of VC investment firms now consider investing in China. This trend could be best described from dialogues such as 'you must be crazy' to invest in biotech in China, to the latest 'are we too late'.

Finally, the forum concluded with another panel discussion: Venture capital and biotech entrepreneurship, moderated by Dr. Shichang Miao, CABS Science Committee co-chair. The panelists of this session were Dr. Charles Hsu (Venture Partner, Bay City Capital), Dr. Zhi Yang (Managing partner, BioVeda China), Dr. James Li (Partner, Kleiner Perkins Caufield & Byers), Dr. Wayne Li (MorningSide), Dr. Joanne Jiang (VP, Fountain Medical Development Ltd.), Dr. Guoliang Yu (CEO, Epitomics), Mr. John Campbell (Partner, Morrison & Foerster LLP), and Dr. Jason Jin (CEO, Shanghai BioChip). After introducing their companies and their venture focus, the panelists were first directed by the moderator to discuss the "hot" areas of biotech entrepreneurship in China, such as new therapeutics and medical devices. A number of questions from the audience were centered on where to get funding. Several options were suggested by the panelists and the audience. The pros and cons of the private funding from VCs vs. government support were hotly discussed and debated. Other options such as angel funding and various incubators for new entrepreneurs were also suggested. Several legal issues associated with these investments were also discussed. Although there is no clear answer as to which funding is the "right one", it was pointed out by the panelists that how one company gets funded may lead to different directions and business models. It will ultimately depend on what the entrepreneur wants to achieve. The panelists also discussed lessons learned from starting up companies in China, including 1) protecting your venture legally from the beginning, 2) for technology platform ventures, retaining IP, and 3) committing to the venture by having management in China.

The forum ended with great success and won some rave comments from some attendees following the meeting. CABS and the meeting organizers have done a great job putting together such a high-profile, highly informative forum. The rapid development of biotech industry in China will continue, and forums like this one will continue to serve a purpose in educating and encouraging future entrepreneurs to get ready for the opportunities. For some, the time is now.