

## Lead Discovery and Formulation Development of Pharmaceuticals

Report on SAPA-West Sci-Tech Seminar By Shuli Zhang

On December 9, 2006, SAPA-West successfully held its first scientific symposium of 2006-2007 at Belmont library in Belmont, CA. The topic of the symposium was "Lead Discovery and Formulation Development of Pharmaceuticals," and it had two sessions.

The first session focused on lead discovery and was chaired by Brian Xu, Chair of SAPA-West Science and Technology Committee. Dr. Bruce D. Koch, who is Associate Director and Leader of the High Throughput Screening Group at Roche Palo Alto, gave an exciting talk on the topic: Lead Discovery via High Throughput Screening. His group at Roche Palo Alto concentrates on high-throughput screening of small molecule leads for programs targeting disorders involving inflammation, virology, the central nervous system, or the genitourinary areas. Dr. Yong-Liang Zhu, Senior Scientist from Plexxikon Inc gave an intriguing presentation on designing and identifying small molecule inhibitors of several therapeutic protein targets using computational approach. His talk was titled "Scaffold-Based Drug Discovery: From Structure to Clinic." Then there were two presentations from our sponsors. Alison Rhoades, genetic analysis consultant from Beckman Coulter, talked about a new multiplex gene expression profiling platform called GXP Technology. Janet Yang from Biovista, Inc gave a presentation on a new software package for data mining and analysis. Her talk was titled "Pre-clinical research and drug safety optimization through Systems Literature Analysis"



The second session focused on formulation development and pathogen safety in process development and was



chaired by Shuli Zhang, Deputy Chair of SAPA-West Science and Technology Committee. The first speaker was Dr. Bhaskara Jasti, Associate Professor of Pharmaceutics and Chairman, Department of Pharmaceutics and Medicinal Chemistry, TJL School of Pharmacy, University of the Pacific. His talk was titled “Role of Formulator in Traditional Drug Development” with a nice overview of drug formulation. Then Dr. Shengjiang Shawn Liu, who is the Head and Sr. Principle Scientist, Pathogen Safety Department of Bayer Healthcare, gave a presentation on Challenges in Biotherapeutics Development and Pathogen Safety. Our last speaker was Janette Phi-Wilson, Senior Director of New Market Development, Fortbebio Inc. She presented a new and exciting assay technology from her company titled “Label-Free Analysis of Biomolecular Interactions.”

This symposium was sponsored by Beckman-Coulter and Biovista, Inc. We would like to thank all the speakers for generously volunteering their time. The SAPA-West Science and Technology Committee with help from SAPA-West executive team are striving to bring more high quality events of this kind to meet our members’ needs.





## Exploring Golden Opportunities in China

Report on SABPA 2nd Pacific Forum on Life Science Alliances  
By Zhu Shen and Hui Li

In the era of economic globalization, a new trend is emerging for more collaborations and interactions between US pharmaceutical/biotech companies and their counterpart in the Pacific Rim, particularly, China. To provide an informative platform to discuss this new trend and its ramifications for local biotech and pharmaceutical companies, and following the highly successful inaugural Pacific Forum on Life Sciences & Entrepreneurship in the previous year, the Sino-American Biotechnology and Pharmaceutical Professionals Association (SABPA) organized its 2nd Pacific Forum on Life Science Alliances, which was successfully held on Saturday, November 4, 2006 at the Institute of Americas at UCSD.

About 200 life science professionals from the US and China attended the conference. Dr. Hui Li introduced SABPA, its committees and accomplishments. The forum chair, Dr. Zhu Shen, a SABPA Board Member and Chair of SABPA's Pacific Connections & Entrepreneurship Committee, gave opening remarks about China's growth potential, advantages and disadvantages in the field of pharmaceutical and biotech industries. Dr. Zili Li from



Merck compared the US FDA and Chinese SFDA in their dealings with drug reviews and site inspections. Steve Kradjian, President of Kradjian Consulting, presented the current status and future prospects of generic biologics.

Three panel discussion sessions also took place, which focused on:

- outsourcing trends
- licensing opportunities,
- career opportunities in Asia Pacific.



Distinguished panelists include Dr. Glenn Rice, President & CEO of Bridge Pharmaceuticals; Dr. Richard Soll, CSO & VP of TargeGen; Dr. Kevin Chen, VP of BioDuro; Dr. Sylvie Sakata, Associate Director of Pfizer; Dr. Henry Li, Director of Immusol; Dr. Alan Paau, Assistant Chancellor of UCSD; Dr. Charles Hsu, Venture Partner of Pappas Ventures; Dr. Jason Jin, President & CEO of Maxybio Corp.; Dr. Peng Chen, Partner of Morrison Foerster; and Dr. Ming Guo, VP of Ascenta Therapeutics. The discussion sessions were chaired by Dr. Zhenping Wu, SABPA Chairman, Dr. Zhu Shen, SABPA Board Member, and Dr. Sophie Qiao, SABPA Board Member & President of LEAD Therapeutics.



Major English and Chinese media sent reporters to attend the conference and interviewed speakers, including San Diego Union Tribune, San Diego Business Journal, “The Melody Show”, a Chinese language TV show, and “We Chinese”. ASIA Media was a media sponsor to the event. Seven life science companies and service firms including Pfizer, Merck, BioDuro, Bridge Pharmaceuticals, Eton, Synstar, and Morrison Foerster also sponsored the conference. In addition to the presentations and panel discussions, participants also enjoyed the Chinese food and networking opportunities.

Attendees gave rave reviews on the Pacific Forum’s high quality speakers, content, organization, professionalism, and networking. Many attendees expressed strong interest to join the SABPA volunteer team. SABPA wishes to thank its 30 plus organizing committee members and volunteers whose enthusiasm, dedication, and team work made the 2nd annual Pacific Forum a smashing success!

Many presentations given by forum speakers and news stories about the Pacific Forum are available on SABPA’s website:

[http://www.sabpa.org/web/news\\_details.php?ID=64](http://www.sabpa.org/web/news_details.php?ID=64)



## Building a Venture-backed Life Science Company

Report on SAPA-West Business Symposium by Janet Xiao and Tao Huang



To facilitate a deep understanding of the key issues for building a successful life science company, SAPA-West presented another Business Forum on February 25, 2007. Six distinguished speakers discussed operational issues of setting up a company, basic process of raising funds, key success factors in getting funded, and IP due diligence. The followings are some highlights of the presentations of the symposium

### Overview on building a venture-backed life science company

Sergio Garcia, a partner in the Corporate Group and Intellectual Property Group of Fenwick & West LLP, discussed some of the

key factors in starting a company, namely, clarifying business strategy, attracting the right people, finding the right business form for the company, finding funding, protecting intellectual property, and developing a solid vision. He cautioned that biotechnology is a highly regulated environment, and that even large biotechnology companies and pharmaceutical companies have low rates of getting FDA approval. Furthermore, costs for drug development are becoming prohibitively high. As a consequence, he saw a clear trend of life science industry transitioning from a research-drive value creation model to a more transaction-based model.

### From inception to IPO and beyond

Lucas Chang, a partner in Morgan Lewis' Business and Finance Practic, gave an in-depth presentation on business models and strategies for setting up biotech companies. Being a seasoned corporate attorney heavily involved in numerous China-related transactions, Dr. Chang's presentation was filled up with useful tips and advice for companies doing business in China. He summarized some of the most crucial factors venture capitalists look for when funding a company, i.e., P-R-I-M-E-D, which stands for People, Relationship, Industry, Market, Exit, and Documentation. He discussed the pros and cons of companies going public or mergers, and further discussed business, tax, and legal considerations in building a company.

### Current Trends in Financing and Building New Life Science Companies

Todd Morrill, who leads Acquisitions and Business Development for the Life Sciences Group at Bio-Rad Laboratories, gave the audience a historic overview of the ups and downs of venture capital financing in life sciences, and emphasized that funding is binary for individual companies and that group statistics is often irrelevant. Mr. Morrill pointed out that life science companies suffer from extraordinary risks because, in addition to normal business risks, they usually face very difficult scientific issues, huge regulatory hurdles, hugely com-



plex IP situations. Nevertheless, life science companies can be attractive to investors because the payoff can be good. Finally, Mr. Morrill identified several areas, such as second-generation biomarkers, medical devices for diabetic control, and medical devices for spinal care as being particularly promising.

### **Investor's view of funding a biotech company**

Dr. Frank Kung, the founding and managing member of Vivo Ventures, LLC, shared with the audience an investor's view of funding a life science company. He revealed that early stage companies having the potential to become market leaders in existing or new market and companies with high potential and low overall risks are typical attractive targets for VCs. Furthermore, VCs are always interested in entrepreneurs who are willing to forge strong partnership to accelerate company growth and liquidity and companies that provide investors with opportunity to realize strategic vision and fulfill personal passion. He identified several issues most VCs will look at when funding a company, namely, whether the market is real, whether the plan can be executed, whether the company can return a big multiple, and whether the company can exit in a timely fashion.



### **Getting the company ready for IP due diligence**

Tom Ciotti, a partner at Morrison & Foerster LLP, demystified the IP due diligence process and provided guidance on how to get a life science company ready for IP due diligence. He suggested that, in preparation of IP due diligence, a company should assemble a team that can properly address questions, which include CEO for answering business questions, CTO for answering technical questions, and IP counsel for answering legal questions. Mr. Ciotti highlighted some of major issues during the IP due diligence process, namely, ownership of IP rights, strength and coverage of company IP, and freedom to operate.

### **Personal experience in Start-up**

Yiyu Chen, Chief Scientific Office and co-founder of Crown Bioscience, Inc., started with a list of "bad" reasons for starting a company, including money and self-ego. He then shared his own experience in setting up a life science company. He recalled his struggles in dealing with the operational logistics of setting up a research laboratory in China. His current company, CrownBio, is aimed at relieving company founders from the operational logistics of running a company, such as payroll, accounting, setting up lab space, and hiring researchers. With the help of CrownBio, entrepreneurs can have a smoother start in their adventure to China and focus more on what they are good at, namely, innovation and R&D.

