Meeting Report

Innovation in Technologies and Globalisation is the Key to Quality and Affordable Healthcare

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Shimadzu Global Pharma Summit 2012, held in Singapore looked at emerging healthcare models and new analytical technologies and discussed what role innovator and generic pharma will play over the next few years towards cost-effective healthcare.

Traditional business models in the pharmaceutical industry are slowly dying out. European and US decision-makers in the pharmaceutical sector no longer regard traditional strategies as viable for affordable healthcare. The challenge for drug-makers is to now to seek out new approaches to cushion the shrinking margins, expiring patents and growing regulatory pressures and at the same time deliver cost-effective healthcare solutions.

Shimadzu Global Pharma Summit 2012 – a multinational melting pot of ideas for the pharmaceutical industry was organised by Shimadzu from 31 October to 1 November, 2012 at Marina Bay Sands in Singapore. The summit, a first of its kind organised by an analytical instrument manufacturer demonstrated emerging healthcare models and new analytical technologies and discussed what part innovator and generic pharma will play over the next few years.

Over 180 experts from the healthcare industry from 15 countries in Asia, US and Europe, including decision makers from the sector and research heads, authorities shared their ideas and strategies and sounded out new approaches for affordable healthcare. Key speakers included – Dr Bianca Avramovitch, Senior Director and Head of Analytical Technologies, Global Generic R&D – Teva Pharmaceutical, Israel; Ms Ashwini Sathaye, Head-Analytical, Novartis Healthcare Private Ltd Technical R&D, India; Dr Akiko Koga, Deputy Manager, CMC Development Department, Chugai Pharmaceutical Co, Ltd (Roche Group), Japan; Dr Parizad Elchidana, Managing Director, Apotex Research Pvt Ltd, India; Dr Chunlin Chen, CEO, Shanghai Medicilon Inc China; D. Michael Entzeroth, Deputy Director, Global Alliance and Preclinical Development, Experimental Therapeutics Centre (ETC), A*STAR, Singapore; Dr Mingqiang Zhang, General Manager, VP & Head of Asia Pacific R&D, MSD R&D (China) Co Ltd, China; Mr. Narayanan Suresh, Chief Editor, Biospectrum and Technology Review India, India; Ms. Rhenu Bhuller, Global Vice President, Pharmaceuticals & Biotechnology, Frost & Sullivan, Singapore and Mr Gerhard Klement, CEO, CD2.

Generics versus Innovation for cost effective healthcare

A high quality drug is obtained through innovation in technologies. Dr Bianca Avramovitch, Senior Director of Global Generics R&D, Analytical Technologies, Teva Pharmaceutical Industries, emphasised that technologies play a key role in making or breaking the success venture of a new drug profile. "Any drug application has two sides, one is clinical and other is technical. Even for generic drug manufacturer, FDA approval requires quality standard from manufacturing to product launch. It is the new technologies that will bring faster development of drugs, minimising the chances of errors."

She also mentioned that speed and excellence brings balance in drug development. "Sophisticated technologies at development and manufacturing stage speeds up the market launch of a drug. Inadequate product development results into slow response to regulatory queries and leads to multiple cycles of reviews, delaying the product deadline."

Affirming to the above views, Dr Ashwini Sathaye, Head, Analytical Division, Novartis, pointed that the question of the hour is how to achieve faster and efficient drug development. She opined that, "It can be achieved through merging deeper scientific understanding with cost efficiency and effectiveness. Drug discovery process involves high multi-phase, complex and dynamic process and hence need significant investment and strong focus."

Therapeutic monoclonal antibodies are being developed globally at an accelerating rate. Compared to cytokine biopharmaceuticals, they require a higher dose and have a higher molecular weight and more complicated structures. In addition to the issues of manufacturing cost, this increases the importance of appropriate quality control in the commercial manufacture.

Dr Akiko Koga, Deputy Manager, CMC Development Department, Chugai Pharmaceutical Co, Ltd (Roche Group), Japan explained the Japanese regulatory perspectives on new drug development and presented an overview of the flow of characterisation, quality design and quality control, while presenting cases from her experiences with the actual development of various therapeutic monoclonal antibodies including analytical development of RoACTEMRA/ACTEMRA, the first therapeutic antibody that originated in Japan.

Cost pressures, the need to tap global talent, and growth opportunities in emerging markets have prompted western pharmaceutical companies to shift substantial work to India. Sharing a broad perspective on the essence of globalisation, Dr Parizad Elchidana, Managing Director of Apotex Research Pvt Ltd, India said "Multinational corporations are searching for means to broaden their capacity for drug development while decreasing costs. Pharmaceutical firms in US and Europe are increasingly forging partnerships with companies in emerging nations to gain revenue and to develop their own expertise". She further added that globalisation makes the availability of technologies the world has to offer easing the access to capabilities that are not available in – house, offering the advantage of time zones and thus improving speed of development and better disaster management.

China represents a unique opportunity to reverse the divergent industrial trends of higher investment in research and early development (RED) and lower productivity. Over 30% of total R&D spend is in RED where products have less than 10% probability of reaching the market. Huge investment in R&D infrastructure, talents and technology platforms has been made by the Chinese government. However, to fully capitalise on this initial investment and turn China into a RED hub of global MNCs, several hurdles need to be overcome, especially in the area of early clinical development.

Sharing useful insights on China's Pharma R&D trends and challenges, Dr Mingqiang Zhang, General Manager, VP & Head of Asia Pacific R&D, MSD R&D (China) Co Ltd said, "Many newest patented medicines are not licensed in China as 'drug lag' and 'strategic decisions' by MNCs and also the quality of domestically produced generics lag behind Western and Indian companies as drugs from different manufacturers show different efficacy. He also shared experiences and explored better methods of administrating within the sector.

The highlight of the event was the panel discussion in which speakers discussed and argued innovative performance in pharmaceuticals between US, Europe and Asia. Giving an analytical perspective on innovation for successful drug stories, Ms Rhenu Bhuller, Global VP, Frost and Sullivan, stated that currently partnerships still isolated and there needs to be more global ventures. For instance, 90% of the research in vaccine is coming from Europe, however, it is predicted that in the years to come, this percentage will drop to 78% but the countries that will pick up in vaccine development is not US but Asian countries such as India, China, Taiwan and Korea." She further added that innovation is not about solving a disease but preventing it. Dr Bianca also shared strategies for successful research and development using innovative approaches.

Speaker additionally shared insights on how the rate of scientific advancement in analytical science influencing the composition, productivity and organisation of pharmaceutical R&D. The potential impact of new technologies on reducing the time and cost of the clinical drug development process, improving data quality and throughput, regulatory compliance, and pipeline productivity.