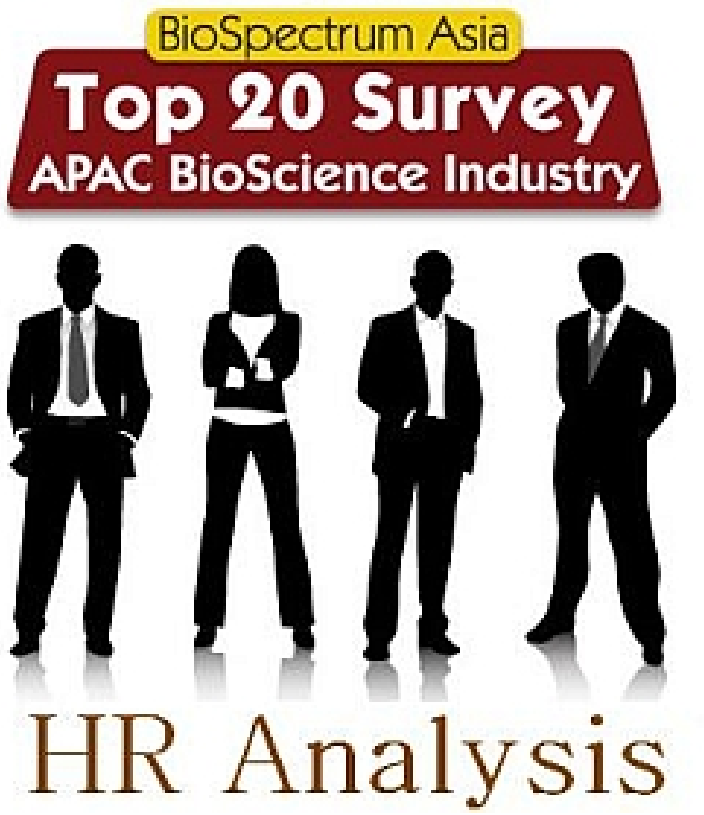
BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Asia faces an acute skills gap challenge

12 June 2013 | Analysis | By BioSpectrum Bureau



Shortage of skills and qualification among life science professionals to pursue risk laden activities is proving to be a hurdle for Asia to emerge as a center of research and innovation. Countries like China and India, which are already riding high in API production and generics business, are striving to lead innovative drug and molecules development. However, lack of skilled labor in R&D is slowing the process.

Recent growing investments by international companies to build their R&D operations in Asia have opened opportunities for domestic talent pool to work with big players of the industry and enhance knowledge sharing. In 2012, Chugai Pharmabody Research, a Japan-headquartered antibody engineering company, committed $150 million plus in antibody research over the next five years and is to hire 60 researchers in Singapore. Also, Merck Sharp and Dohme (MSD) is expanding its presence in Singapore by investing in local research activities and training collaborations between Singapore and its global sites.

Insufficient numbers of domestic skilled manpower compels foreign players to hire talent from west. International life science recruitment firm Hays Recruiting Worldwide highlights that Asia is paralyzed by mismatch between demand and supply forces, and countries like India, China, Korea, and Malaysia are facing obstacles in finding appropriately skilled manpower to carry out research complying to international standards, work at par with globally-acclaimed scientists, and execute research-oriented projects. Also in some countries like Singapore, the gap between those who work for professional growth, and who are profit-oriented is emerging as a serious HR issue, according to Ms Samantha Su, director, services and biomedical, Spring, Singapore, and Mr Simranjit Singh, chairman, BioSingapore

.

"We see a lack of government or educational initiatives to bridge this gap," says Mr Matt Kerr, senior manager, Hays Recruiting Worldwide.

The gap stats
Asia's pharmaceutical industry employed about 150,000 manpower in R&D division in 2012, of which Indian industry had around 70,000 researchers on its rolls and China engaged over 40,000 personnel, according to BioSpectrum estimates.

The interest expressed by the international as well as domestic companies to conduct research and innovation in Asian countries including India, China, Korea, and Australia, is indicative of rising global demand for research-related skill-set in the region. There is high requirement of employees with skills in regulatory affairs, clinical strategy and project management, and skilled and qualified researchers. However, over the next five years, the entire region is anticipated to face skills gap in these areas.

BioSpectrum takes a snapshot of the challenges faced by Asian countries while recruiting right human talent and implementing strategies to fill the gap.

India takes steps towards narrowing skills gap
In order to fill the talent gap, the Indian government has designed strategies to increase the influx of qualified professionals into molecular biology, biochemistry, biotechnology and assay development.

Department of Biotechnology (DBT), India, has adopted programs, such as Star College program, to strengthen undergraduate education in life science. Under the program, the DBT is establishing biotechnology education institutes over a period of 12 years. It has also introduced fellowship schemes for re-entry of scientists, who were stationed abroad, into India, and around 200 scientists have been brought back since 2009. The DBT has also proposed to initiate a short-term training program for skill improvement in areas of recombinant human monoclonal antibodies and production, drug discovery, stem cell technologies, transgenic plant related technologies, transgenic animal development and IPR, and regulation.

Mr Anurag Bagaria, chairman and managing director, Kemwell Biopharma, India, says that the fact that global players are setting up operations in Asia, including India, shows that the country is becoming a service providing destination. However, manpower retention is posing a big challenge.

One of the strategies adopted by pharmaceutical companies to enrich the human skills is through providing global exposure to its staff. Ranbaxy has established its workforce in over 50 countries with a total manpower strength of approximately 14,600 employees.
As a strategy to groom international talent, Ranbaxy gives mobility to its employees across geographies to enrich work experience. "Employees greatly benefit by sharing the best practices from across the emerging markets and avoid reinventing the wheel in many existing practices," says Mr Sourav Prakash Mohapatra, associate director, HR, Global Generics, Ranbaxy, India.

China's 12th Five Year Plan boosts human capital
IMS Health predicts that the value of the Chinese pharmaceutical industry could grow up to $165 billion by 2016. China's 12th Five Year Plans (2011-15) emphasize on modern healthcare services and is striving to gain credibility in high end research for affordable drug pricing. The new growth model is propelling innovation and technological superiority in the country, boosting demand for high quality domestic products and trained researchers to perform cutting-edge activities.

Pharmaceutical companies in China, aspiring to develop new drugs and molecules, are concerned about the impact of skills shortage on their research pipelines. Driven by the strategy to boost China's life science industry, the country has opened doors for large international firms to invest in China.

Suggesting a solution to gain access to skilled researchers and scientists, Mr Matt Kerr, Hays Recruiting Worldwide, says, "Over the past few years we have seen a steady migration of companies, that either moved their entire regional headquarters or specific departments to China, in an attempt to capitalize on this booming market and to leverage gains to be made from the relatively low operating costs in China. One of the major areas where we have seen position growth is in R&D with companies such as Roche and GlaxoSmithKline (GSK) investing heavily in drug discovery and setting up dedicated R&D centers."

Companies such as Pfizer and GSK are diversifying their operations. They are laying off employees in the West and are

increasing their representatives in China. Partnership of MNCs with local institutes and companies is helping domestic organizations to train the manpower and gain access to international knowledge.

Malaysia creates 13,600 new job opportunities

In a bid to boost the biotechnology sector, in 2012, Malaysia identified 10 entry point projects in the areas of bio inputs, bio-based chemicals, biomaterials, bio-based farm inputs, high value bio-ingredients, high value food varieties, biosimilars, drug discovery, molecular screening and diagnostics, and stem cells and regenerative medicine. These entry points are designed to create additional 20 trigger projects, creating 13,600 new job opportunities and are expected to push the gross national revenue to $1.1 billion (RM3.6 billion). Malaysia had harnessed investments of around $4.1 billion (RM12.7 billion) in 2012, exceeding the $2.9 billion target set for 2015, and the sector has created 64,753 jobs.

Hays Pharma mentions that contract research organizations are experiencing a period of unparalleled growth in Malaysia. The shift by pharmaceutical companies to outsource most of their clinical functions and even some regulatory affairs work has seen a high increase in demand for clinical research associates, and clinical leaders in Malaysia. This has created an environment of fierce competition for talent and is steeply driving up salaries.

Singapore tackles HR challenges

The 2012 Yearbook of Statistics by Singapore Department of Statistics reveals that during the period from 2009 to 2011, the country witnessed a five percent lower average growth rate compared to 27 percent between 2006 and 2008, in new enrollments for life science courses at polytechnics and universities.

"Opportunities in the biomedical industry have especially attracted candidates from countries like Australia, Europe and the US, where there are more talents with the needed experience, academic qualifications and international exposure compared to Singapore," shares Ms Karen Tok, managing director of ScienTec Consulting, an executive search and professional recruitment firm. "It is a skilled market with very intensive standards," says Ms Tok. "Hiring outlook remains positive, but roles in biomedical and scientific areas for the R&D facilities require, among others, clinical exposure plus commercial experience and, at least, a PhD. Right now, there are not enough local candidates to meet end-to-end requirements."

To create aspiration among Singapore nationals to pursue higher studies in bioscience, Singapore has implemented various programs capable of attracting industrial, intellectual and human capital investment in bio-medical sciences. Brighter prospects in areas like R&D productivity, innovative medical solutions, integrated research network in basic and translational research, are being highlighted through international collaborations and exchange programs such as Singapore-Stanford Biodesign program to train the next generation of medical technology innovators in Asia.