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ASIA EDITION

Can we fix the gap?

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Can we fix the gap?

It is always about people. For any organization to succeed talented workforce is as important as money, vision and an innovative idea.

With global increase in demand for medicines and quality healthcare services, the field of lifescience has become a trillion-dollar sector, attracting students to pursue this discipline dreaming of a bright career.

Many domestic and international companies have also realized the potential and capabilities of Asian countries in research and development and have increased their investments in this area, thus promising more jobs.

In such a win-win situation there should be no difficulty in finding a job or recruiting the right talent for any organization. But still, the industry as well as lifescience workforce seem to grapple with this issue of JOBS and finding the right skilled labor for its organization. So clearly there is a gap in what the industry needs and what the academic organizations produce or the talent available.

On one side shortage of skilled talent is increasing competition for talent hunting among top life sciences companies, while on the other side graduates and life science employees are not finding the right job.

Recruiters and employers state that the entry level talent in Asia is not industry-ready and needs substantial training involving huge costs and time, while fresh young graduates complain that they do not find jobs and are unemployed after a career in biotechnology.

So what has created this deficit? For long, Asia has maintained a reputation as the manufacturing hub of the world offering very less opportunities for research. Thus the talented workforce generated in these countries tends to gravitate to more promising western countries where investments and opportunities for research are more.

However, this scenario is now changing fast with many domestic and foreign companies showing keen interest to cash-in on the potential of emerging markets Asian markets and thus creating opportunities and jobs for the skilled workforce that Asia offers.

BioSpectrum Asia takes a snapshot of challenges faced by Asian countries while recruiting the workforce needed for their organizations and efforts taken by the countries to boost its biotech talent and foster this burgeoning sector.

Over the past few years, Asian lifescience sector has witnessed rapid growth and development making it a hot-bed for investment by domestic and foreign companies. Growing investments by international companies in Asia has opened up new opportunities for domestic talent to work with big players of the industry thus encouraging collaborative work and knowledge sharing.

Governments in emerging markets such as China and India are also playing an active part in providing an impetus to the burgeoning biotech sector by providing robust funding to kick-start their countries' biotechnology industries and are taking specialized initiatives to groom its biotech talent to meet the demand.

The number of product patents coming from emerging economies has increased by double digits over the past few years. Recognizing these countries' growing capabilities, many leading pharma and biotech companies are outsourcing certain R&D activities to these markets. However, shortage of talent to pursue drug and disease research is proving to be a hurdle for Asia to emerge as a center of research and innovation.

Mr Ravi Dasgupta, founder, RCD HR Consulting, said, "Biotech in Asia is comparatively in its nascent stages. There are far more opportunities in the US and Europe and so the skilled talent tends to gravitate towards such places. Asia is more a manufacturing base for many companies, and so one tends to get readily available talent (at a price of course) in manufacturing streams like production and quality control. Companies which are involved in biotech research find it more difficult to get high end talent, especially in the Asian countries where salary levels for biotech talent are a fraction of what is paid in the more developed markets like. Fortunately, biotech is more technology and infrastructure intensive than manpower intensive, or else the problem would have extended to manufacturing as well."

Increasing investments in Asia promises to create more jobs
Asian healthcare sector is roughly growing at a rate of 15 percent per annum which is faster than the US and Europe.

Singapore-based private equity firm Quadria Capital recently announced that it has raised $304 million for healthcare investments in Asia.

The firm announced that the fund will be channeled towards "high-quality and scalable mid-sized healthcare companies" including businesses with a focus on hospital services and pharmaceuticals. "In Asia healthcare is a sector that is going through a tremendous amount of change and is showing tremendous promise," said Mr Abrar Mir, managing partner, Quadria Capital. About 70 per cent of global growth in healthcare demand today comes from Asia, where the industry is growing faster than in any other part of the world", he added.

The year 2014 recorded 1215 deals with Asian companies, closed and announced, sealing $ 379.5 billion in total value. Many of these deals were centered towards research and development. Some of the noteworthy deals include- Janssen Pharmaceuticals' research pact with Taiwan's BRIM Biotechnology to pursue research, development and commercialization of certain compounds targeted for dengue indications.

Swiss drug giant Roche announced an investment of $467 million to build a diagnostic facility in China, creating 600 new jobs. This will be Roche's first diagnostic facility in Asia Pacific.

Japanese giant Toshiba recently inaugurated a new plant for diagnostic imaging systems in Penang, Malaysia investing around $14 billion, creating nearly 150 new jobs. Korean electronics giant, Samsung, also announced an investment of $133 million for the expansion of its biotech and pharmaceuticals unit.

US drug giant Bristol-Myers Squibb and Syngene International, the contract research subsidiary of Biocon, announced a five-year extension of their drug discovery and development collaboration in India. Shantha Biotechnics started building a facility

to manufacture Insuman, an insulin product to treat diabetes. French pharmaceutical company Sanofi SA, which acquired Shantha Biotechnics in 2009 through its vaccines division, Sanofi Pasteur SA, is investing Rs 460 crore (US$ 73.59 million) to build the facility.

Though these investments promise a bright future for Asia's biotech talent, insufficient numbers of skilled workforce available prompts companies to hire talent from the West. Recruiters highlight that Asia is paralyzed by mismatch between demand and supply forces, and countries like India, China, Korea, and Malaysia are facing difficulties in finding skilled manpower to carry out research complying with international standards, work at par with globally acclaimed scientists, and execute research-oriented projects.

"In Asian countries, generally, the quality of talent is better in the MNC companies than in the domestic companies which typically don't have such deep pockets," explained, Mr Dasgupta.

"The limited career opportunities, and the low starting salaries make IT for example a far more attractive career option for youngsters, and so you find more of them youngsters opting for educational courses that will lead to careers in IT rather than lifesciences. Even for those who decide to brave the odds and pursue life sciences in their academics, the opportunities in APAC (except for Singapore) don't really match with the opportunities in the US and Europe, and so the best and brightest talent look for opportunities to move there if they are able to. Both in terms of the quality of education as well as the kind of job opportunities, Asia Pacific is no match for the more developed nations as far as careers in lifesciences is concerned.'

The need for Specialized Talent

At present there is a wide gap between the quality of biotech education and the needs of the industry. "Biotechnology is a highly fragmented sector," said Mr Prashant Nagre, CEO, Fermenta Biotech, "Students get trained under various skill sets and the talent groomed at entry level is quite different from what the industry needs. The talent recruited needs intensive training that involves lot of cost and time. Also micro specialization is necessary. If the biotech industry in Asia is to realize its full potential, several issues need to be addressed. Asia's skills deficit needs immediate attention."

Despite the presence of quality research institutions and investments in the field, Asia still does not have a substantial pool of well-trained manpower and many of the top life science companies' leaders state that biotech freshers who graduate from colleges are not industry ready and need substantial training to cope up to industry standards. It is important to develop talent to fill this gap. "At the junior level, its mainly the lack of exposure to the latest equipment and the somewhat dated theoretical content," said Mr Dasgupta.

"Many educational institutions are just slowly making the transition from rote learning to understand concepts and applying them in practical problem solving. At middle and senior levels, it is difficult to find talent with exposure in areas like regulatory in biologics and other specialized research streams. There are not many companies in Asia doing high end research work, (though the scenario is slowly changing now) and hence finding the right talent is difficult unless you can afford to source talent with international experience and have a strong enough employment brand to attract them."

Mr Nagre, observed, "Significant amount of graduates are churned out every year. However, there is a gross mismatch between supply and the demand of labor. While there is an abundance of people looking for work in Asian countries, there is also a fundamental lack in the standard of labor compared to skill requirements of various companies. Though the government is putting efforts, significant steps need to be taken to address this gap. Beyond finishing schools a lot needs to be done and students must be exposed to various aspects of industry. This is possible only with industry-academia partnerships so that the industry can spell out what is required in the real world and the academia can provide the required training."

Asian countries efforts towards narrowing skills gap:

Singapore:
In less than 7 years Singapore has become home to 9 biologics manufacturing facilities representing approximately S$2.4 billion in total investments and employing 1,700 people. Over the next 3 to 4 years, the burgeoning biologics industry is expected to create an additional 700 to 1000 jobs in Singapore.. Many global biotech drugmakers like Amgen and Abbott have cited the country's rich talent pool and business friendly environment as a major reason for setting up Asian headquarters in Singapore.

"The best opportunities for lifescience graduates are in Singapore," stressed, Mr Dasupta. "Singapore has traditionally been the APAC regional headquarters for many MNCs. The high salaries and standard of living, moderate tropical weather and ubiquitous use of English make it a place where many expats like to work. There are opportunities in medical, regulatory and

R&D besides manufacturing."

Focused on developing a vibrant biomedical sciences research ecosystem, Singapore has built up a strong scientific foundation with seven research institutes and five research consortia in key fields that include clinical sciences, genomics, bioengineering, cell biology, medical biology, bio-imaging and immunology. More than 50 companies are carrying out biomedical sciences R&D that includes drug discovery, translational and clinical research, frequently collaborating with these research institutes.

The city-state has also made significant progress in translational and clinical research. It has built up key infrastructure such as the Investigational Medicine Units dedicated for early-phase trials in public hospitals, as well as the Singapore Clinical Research Institute, which focuses on supporting later-stage trials. These facilities will in turn support the growing community of clinician scientists in Singapore.

Further to bridge skills gap, Singapore's Workforce Development Authority (WDA) rolled out the Development and Apprenticeship (DNA) program to support the costs of trainees undergoing local On-the-Job training in the industry. A new training program, Biologics Overseas Skills Training (BOOST), aims to build up a buffer pool of talent in anticipation of future demand for the biologics industry. The BOOST program will train 150 specialists over 3 years in WSQ certified biologics modules coupled with structured overseas work attachments.

Singapore has also introduced the Sectoral Manpower Development Fund (SMDP) for the Biologics Manufacturing industry for talent development. The SMDP collaborates with a variety of organizations has the support of industry players including Abbvie, Amgen, Baxter, GlaxoSmithKline, Lonza, Novartis and Roche.

India

The Indian biotech industry holds about 2 per cent share of the global biotech industry. The Indian biotechnology sector is expected to grow from the current US$ 5-7 billion to US$ 100 billion by 2025 by doubling the growth rate of this sector from 15 percent to 30 percent, according to the Association of Biotechnology Led Enterprises (ABLE).

India's biotech sector has attracted significant amount of attention over the past two decades. In a bid to bridge the talent gap, Indian government has designed several strategies to make young aspiring biotechnology graduates industry-ready. In collaboration with Department of Biotechnology (DBT), Biotech Consortium India Limited (BCIL) has introduced a scheme of practical industrial training for post graduate Biotechnology students.

The objective of this program is to provide industry-specific training to Biotech students for skill development and enhancing their job opportunities in biotech industry. This program provides an opportunity to Biotech Industry for training and selecting suitable manpower. The training period is for six months during which a trainee is paid stipend of Rs.10,000 per month and trainer company is paid a bench fee to cover the expenses for providing training.

"In India the opportunities are more in Manufacturing with a number of players in the domestic insulin manufacturing segment. A few companies are involved with Biologics R&D as well, but so far none of them have anything spectacular to talk about," mentioned, Mr Dasgupta.

The department of pharmaceuticals (DoP) is planning to establish six pharma clusters in the country by the end of financial year 2015-16. As part of this, the DoP had recently launched Cluster Development Program for Pharma Sector (CDP-PS) to enhance the employability and competitiveness of pharma sector in the country. The clusters will further boost the domestic pharma sector in the region, thus increasing jobs for local talent.

DBT has announced the Indo-Australian Career Boosting Gold Fellowships under which it will support the researchers to undertake a collaborative research project at a leading science institute or university in Australia for a period of up to 24 months.

Apart from the government, domestic companies are taking initiatives to nurture biotech talent and retain employees. Indian biologics major Biocon has set up the Biocon Academy that collaborates with top Indian and foreign universities bringing in world class training programs for biotech students in India and thus help in developing a new cadre of life sciences professionals with specialized skills.

To foster innovation and better understanding of changing regulations, global companies are also taking initiatives to train and retain talent by offering various skill developments and training programs. Many companies also enter into foreign collaborations thus encouraging knowledge sharing and collateral work.

"At Fermenta Biotech we look at establishing collaborations with bigger companies which will expose the team to unique

challenges," said Mr Nagre. "Such partnerships help in bringing new challenges and projects thus increasing enthusiasm and innovative capacities among team members."

Korea:
The Korean Ministry of health and welfare have announced the start of second phase of Global Pharmaceutical Industry Development Fund worth 135 billion won (US$123 million) to nurture the pharma sector in the country and strengthen its competitiveness. The funding aims at accelerating and fostering new drug research and creating an ecosystem for business growth and create more jobs for local and overseas talent.

The fund aims to develop small and medium sized pharma enterprises with promising product pipelines. Reflecting the long-term investment characteristics of the pharmaceutical industry, the fund will supply capital for eight years, with an additional two years as an option.

Malaysia:
Since the implementation of National Biotechnology Plan the biotechnology industry in Malaysia has shown signs of favorable progression with increasing market capitalization of the biotech players and industry funding. Nonetheless, human capital development still remains as a relatively untapped thrust under the policy. Most significant is the fast growing rate of unemployed biotech postgraduates in the private sector.

Whilst Malaysia BiotechCorp's human capital development initiatives such as the Biotechnology Entrepreneurship Development Framework and the Biotechnology Special Training Programme (BeST) for unemployed life science graduates are found to be effective in addressing training gaps - further collaborations with industry partners need to be strengthen to escalate results.

BiotechCorp has tied up with Korea Research Institute of Bioscience and Biotechnology for providing specific training to Malaysian graduates who have completed the Biotechnology Special Training (BeST) Program in bioprocess-related areas.

Malaysian government is showing keen interest in fostering the biotech sector and solving this manpower crisis. Malaysian life science park, Bio-Xcell, has collaborated with the Industry Center of Excellence (ICoE) in biotechnology, Ministry of Higher Education (MOHE), Government of Malaysia, to develop quality talent in the nation. The alliance will focus on building a pipeline of quality graduates for specific industries. Malaysian Bio-XCell, India's Biocon and CJ (CheilJedang) from Korea are the industry pioneers for the ICoE Biotechnology initiative.

University Malaysia Pahang and Manipal International University are the lead universities to spearhead this ICoE Biotechnology initiative, connecting industry players with other IHLs and related agencies with the aim to boost human capital development, R&D and commercialization in the biotechnology sector.
"This partnership will further strengthen the private-public sector partnerships and scientific collaborations between Malaysian centers of excellence and global businesses to accelerate Malaysia's advancement in the biotechnology industry," said, Mr Rizatuddin Ramli, CEO, Bio-XCell.
Layoffs in pharma industry

All is not well even for employees who manage to find jobs and are on rolls of major pharmaceutical comapnies. Operating pressures have resulted in cost cutting and layoffs. Expiry of pharmaceutical patents led to an estimated $100 billion worth of lost drug sales worldwide, putting pressure on companies to reduce operating costs. The year 2014, saw many leading pharma companies announcing restructuring and layoffs.

In 2013, GSK wrapped up the manufacturing facility of its acquired skincare firm, Stiefel Laboratories, based in Singapore citing its under-utilized capacity and axed around 100 associated staff. In a bid to save billions of dollars, GSK is not the only firm wrapping operations from Singapore. Pfizer also opted at squeezing operation and decided to shut down a clinical research facility in Singapore operating from Raffles Hospital and axed around 30 staff. Eli Lilly has also announced to close its R&D centre in Singapore that would cost employment to around 130 of its staff members.

Top layoffs of 2014:
â€¢ The US drug giant Bristol- Meyers Squibb(BMS) announced that it is all set to axe 1000 positions in China. The company said that the move was initiated in an attempt to adjust to the changing market conditions amid a clampdown on corruption.

â€¢ Following the cost cutting trend of many of its multinational counterparts,Japan's Eisai announced a lay off a quarter of its US commercial and regional corporate services units, which currently employ about 850 people.

â€¢ In 2014, Swiss giant Novartis announced its plans to cut or shuffle upto 4000 jobs to reduce operating costs. The

company planned to move many of its employees to its new service center in Hyderabad, India which may begin functioning by the end of 2015.

â€¢ In response to sagging revenues, GSK declared to lay off 1000 employees in China this year.

â€¢ Japan's Daichii Sankyo said that its cutting its commercial operation staff by 16 percent. The layoffs were due to Daichii losing exclusivity on two of its blockbuster drugs.

â€¢ The merger of Sun Pharmaceutical Industries and Ranbaxy Laboratories will create the world's fifth biggest generic drug maker, but it will also result in job redundancies. Sun pharma announced plans to axe a lot of employees and realign management activities.