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Medtech to fuel future growth

December 17, 2014 | Influencers | By BioSpectrum Bureau

Medtech to fuel future growth



Singapore: With the presence of major international medtech companies in the country, Singapore's key concern is to grow and stabilize the local medtech developers and entrepreneurs. From 2000 to 2010, the manpower base in medtech sector is reported to grow from 4,000 to more than 8,000 and its manufacturing output has also risen from $1.5 billion to $3.6 billion.

With the objective to grow its medtech sector, Singapore has recently invested $60 million in starting up a diagnostic hub to support the local medical technology developments. Besides, the country also injected $30 million fund managed under the Sector Specific Accelerator (SSA) program that took off in 2011 to provide a lending hand to Singapore medtech developers. SPRING Singapore, the national wing that supports local start-up firms, has recently appointed two accelerators in the medical technology industry to boost the growth and are expected to play the role in shaping the medtech industry.

Associate Prof. Tan Sze Wee is the deputy executive director of Biomedical Research Council of A*STAR and is playing an important role in the development of Singapore's medtech industry. Biomedical Research Council (BMRC) supports, oversees and coordinates public sector biomedical research and development activities in Singapore and engages in human capital development in the biomedical sciences. A/Prof Tan is also the chairman of Singapore-Stanford Biodesign (SSB) program of Agency for Science, Technology and Research (A*STAR) that aims to train the next generation of medical technology innovators in Asia.

A/Prof Tan was formerly the managing director and chief executive officer of Rockeby biomed, a Singapore-based, healthcare company specializing in research, development and marketing of rapid testing technologies for infectious disease in humans and animals and lifestyle health products.

Wearing multiple hats, A/Prof Tan is currently a council member of the Singapore Medical Association (SMA) and the chairman of Singapore Medical Association Private Limited, the commercial entity of SMA. A/Prof Tan also serves on Ministry of Health's Singapore Medical Council Committees for both continuing medical education and maintenance of competency and was a former nominated member of parliament of Singapore.

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In an interview with BioSpectrum Asia, Dr Tan Sze Wee talks about country's approach to develop its medtech sector and the challenges a start-up firm faces while progressing a device from lab to market.

When it comes to developing a favorable environment for the growth of medtech sector in the country, what are the major concerns and priorities?

Our main priority is to build a strong infrastructure that comprises of human capital, financing channels and regulatory expertise that we believe are the crucial elements of the growth. We are looking at developing an ecosystem where local researchers have the space and tools to develop and commercialize medical devices. Since we are at the initial stage of developing our medtech sector, we are also assessing the bottlenecks that inhibit the success at later stage.

Human capital is the most crucial element of the whole ecosystem for which we have designed programs that targets talent nurturing and growth. One of the dedicated programs is Singapore-Stanford Biodesign (SSB) program that aims to train the next generation medical technology innovators in Singapore. Our second initiative is linking the ecosystem together including hospitals, academics and research institutes.

Talent is not just about breeding the medical device developers but to support the start-up companies and bring veterans of medtech sector in Singapore to gain knowledge from them. We are also looking at exposing Singapore developers in overseas skill development centres.

What is your view on the regulatory structure of medical device and how is Singapore gearing to get expertise in the process?

We realize that regulatory could be a major bottleneck in the development of future medical industry as regulatory often lacks transparency, understanding and a clarity on the whole process. Regulatory process is a hurdle not only for MNCs but start-ups as well and our idea is to develop expertise in this area.

Our vision is to develop Singapore as the tower hub for regulatory knowledge in the region for which we have to develop talent in regulatory structure. Singapore has partnered with Regulatory Affairs Professionals Society (RAPS) of US for a joint graduate certificate in Medical Devices Regulatory Affairs (MDRA) program. The program is intended for Singapore-based regulatory professionals to cultivate an industry-ready regulatory workforce. We hope to position Singapore as the hub for regulatory support in the region.

Generating fund has always been a challenge for start-up firms. Though Spring Singapore provides support to kick start a firm, midway fund raising poses a major challenge. How do you believe the budding companies should progress in fund raising process?

We have quite a number of funding programs in public space starting such as Spring Singapore, that supports the local start ups, and bioscience accelerator program. Besides, we are also looking at ways to provide mid stage financing. Once the company starts commercializing and rolling out revenue, they can go opt for various options. Also, growth of a start-up firm also depends on the quality and novelty of the product. Going public for raising funds might turn out to be risky for start-up firms and hence, looking for private support is the best option.
Market access is another challenge faced by medical device industry. If the medical device is innovative, it can fetch good pricing and exposure in market and we are trying to encourage the development of novel devices only.

Do you see local medical device developer bringing innovation to the regional market?

Innovation is mostly coming from academics before they move to spinoff stage. To accelerate innovation, we have partnered with Korea Health Industry Development Institute (KHIDI) to enable knowledge exchange program between Singapore and Korea and currently four Korean companies are being groomed in our facilities.
Singapore has over 100 local medtech starts ups but majority of them are in developing stage. We are supporting scientists to turn into entrepreneurs to bring their device in the market.

What is the access for a device developer in Singapore to launch a product in the global market?

There is a platform to launch products in global market but the start-ups have to develop a strong product that has potential market. If the product is good, the market is open. Today it is not only about developing a product or getting regulatory approvals, but who is going to pay for the reimbursement and is their scope of getting pay back support. In the past, technology has been based on the incremental changes but now it is about novel products.