

Start-up landscape in Southeast Asia

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Singapore: The findings are surprising, mentions BVGH, as often it is the big pharmaceutical companies that invest larger amounts of money in neglected disease R&D. According to the report, biotechnology companies make up the second largest number of organizations participating in neglected disease product development (104 out of 348 total unique organizations) mostly at pre-clinical stage.

Asia has yet to go a long way to create a nurturing and assisting environment for its local small and medium biotech enterprises. Countries like Singapore and Korea have realized the significant role start-up companies can play in changing the dynamics of an emerging country and policies have been laid to support their growth. Other countries like Taiwan and Vietnam are gradually taking initiatives to help grow the local biotech assets.

Start-up enthusiasts need infrastructure capabilities to pursue their project, consultations for commercialization and growth, funding for carrying the whole research and a shield that offloads the risk factor to some extent.

BioSpectrum Asia takes a look at the recent initiatives by South East Asian countries to support and nurture the start-up community in biotechnology sector and the platforms designed for the toddler firms to thrive.

KOREA

Korea, in 2014, announced to grow and support 50 innovative biotech companies by 2020. Gaining strength and success in biosimilars and stem cells, Korea intends to encourage small venture companies to develop technology in new biosimilar and biobetter pharmaceuticals. Korea is intending to grab a share of more than 10 percent of the market share in the global stem cell industry by 2020.

Korea Research Institute of BioScience Biotechnology (KRIBB) is in authority to support start-ups and establishing joint venture with partner companies to accelerate product development. The organization is armed with requisite wings including intellectual property management, collaboration, technology transfer, technology valuation, business incubation and creating joint ventures.

Funding

In 2014, Korea invested around \$199 million in biotech sector to support the funding of promising projects and each selected project is estimated to receive \$16 million in 2015. Startup firms accounted for around 13.7 percent of listed companies on Korea stock exchange in 2014 while it was only 3.6 percent in 2004. Ministry of Science, ICT and Future Planning allocated \$1.2 billion in supporting start-up firms and SMEs across the sectors, raising the bar by 7.4 percent.

Patent

Korea is leveraging its Intellectual Property framework to support local inventions. In 2015, Korean Intellectual Property Office (KIPO) is focusing on pharmaceutical and 3D printing sectors to ensure easier patent registration system and fostering IP financing.

SINGAPORE

Standard, Productivity and Innovation Board (SPRING Singapore) is the platform for small and medium enterprises in Singapore to gain access to support programs for funding and incentive schemes. In 2014, SPRING Singapore invested \$60 million to boost the growth of medical technology developed by start-up firms.

Schemes

Singapore has laid out various schemes that start-up firms can avail for the initial push. For equity investment, SPRING SEEDS Capital, SPRING's investment arm, co-invests in innovative start-ups with third-party investors and participating business angel investors and accelerators. Technology Commercialization scheme helps a start-up company to apply for early-stage funding to commercialize the technology ideas.

Biomedical Sciences Accelerator program helps the biomedical start-ups to avail Sector-Specific Accelerator (SSA) Programme that encourages the formation and growth of start-ups in medical technology through investment and strategic growth support.

Patent

To help SMEs in the medical technology sector to transform ideas into products and services, SPRING works with two Private Sector Translator (PST), AITbiotech and IPTech, who identify, develop and commercialize Intellectual Property (IP) for SMEs in the medical technology industry. The PSTs offer SMEs a pay-per-use model so SMEs can have access to their services without having to set up their own in-house research facility or to spend on manpower or equipment. Besides the translation of IP, the PSTs provide R&D services such as validation and feasibility studies.

Start-ups contribution to economy

By 2012, Spring Singapore has helped in establishing 146 companies in biomedical industry and 4,405 establishments in healthcare services. Start-ups in biomedical industry have added USD16,348 million, accounting to 4.9 percent of country's GDP and healthcare start-ups generated \$3 billion.

VIETNAM

Vietnam is aiming to develop 500 high tech firms by 2020 in different sectors including biotechnology and the ministry of science and technology is taking the initial steps to spark the growth. In 2013, Vietnam launched Silicon Valley Ecosystem, a program to encourage startups to pursue new projects.

New Projects

Vietnam Silicon Valley project provides a 4-month intensive startup accelerator and is seeking to change the face of technology applied business along with other sectors. Vietnam has also proposed another program in Ho Chi Minh city for R&D and production and Saigon Hi-Tech Park (SHTP) to host biotech start-up companies with research and production in gene diagnostics and novel therapies.

In another program, Ministry of Science and Technology and World Bank have jointly developed a program called FIRST with an investment of \$110 million to support biotechnology.

AUSTRALIA

Australia created research & development (R&D) concession program in 2011 to provide incentives and support to innovations brewing in the country. The tax concession allowed 45 percent refund component that enabled the innovation driven companies to cut down the research cost. AusBiotech reports that more than \$100 million has come back to the sector in cash refunds under the scheme in a time span of two years.

Start-up support system

Australia has set up several wings, at central and federal level, that supports the small and medium enterprises to grow in

biotech sector.

BioVentures is Queensland Investment Corporation's biotechnology and lifescience specific venture capital arm.

Victorian BioPortal provides information about sources of funding for biotechnology

Bio SA assists early-stage South Australian biotechnology companies to access private and public funding

Industry & Investment NSW conducts a range of innovation and research activities including providing R&D grants and assistance. R&D Tax Incentive provides a targeted tax offset designed to encourage more companies to engage in research and development in Australia.

Commercialization Australia assists researchers, entrepreneurs and innovative companies to convert intellectual property into successful commercial ventures

Enterprise Connect provides support to small and medium-sized businesses to improve productivity, increase competitiveness, and capitalize on growth potential

Innovation Investment Fund is a venture capital program that supports new innovation funds and fund managers with expertise in early-stage venture capital investing.

TAIWAN

Taiwan set up a Taiwan Medtech Fund couple of years back as its first biotechnology venture capital fund to invest in promising startups companies and support the innovation program. Taiwan gave boost to its biotechnology sector in 2011 by allocating a budget of \$1.2 billion for the establishment of a biotech incubation center and eased the process of accessing venture funds to support innovations. Taiwan's Supra Integration and Incubation Center (Si2C), launched in 2011, is the first government-sponsored agency in Taiwan to uplift biotechnology industry by supporting new and innovative biotech products

Taiwan's Diamond Action Plan for Biotech Takeoff is also implemented to strengthen the development of industrial R&D capacity in the biotech value chain and the establishment of a biotech venture capital fund.

MALAYSIA

Malaysia's biotech arm, BiotechCorp, has implemented BioNexus program to support innovations in biotechnology sector by linking universities, laboratories, and research institute. Since 2005, BiotechCorp has facilitated development of 225 BioNexus-status companies in Malaysia with total approved investment of \$90 million. BioNexus status companies get support on IP advisory and regulatory services to manage their business locally and internationally.

Tax exemption

Malaysia gives some attractive tax exemptions to start-up companies to grow their business in initials years of establishment. A BioNexus status company gets an exemption from tax on 100 percent statutory income for a period of 10 consecutive years of assessment.

In 2011, Malaysia also set up Biotechnology Commercialization Fund (BCF), a new fund program, for BioNexus companies to facilitate on-going commercialization of biotechnology products and services and expansion of existing biotechnology business.