

Asia's prominent biotech parks

12 May 2015 | Analysis | By Aishwarya Venkatesh

Asia's prominent biotech parks



Singapore:

Suzhou Biobay, China

Located in China, Suzhou Biobay is an innovative science and technology park designed for the development of the emerging biological industry and the nanotechnology industry. Biobay supports companies with distinct gene technology and nanotechnology capabilities. The park provides comprehensive soft and hard service platforms that help companies reduce R&D costs and accelerate transformation of results. The hard services provided include assistance in areas of drug analysis, antibody technical analysis, drug delivery mechanisms, and new drug innovations.

In collaboration with the Suzhou Institute of Nano-tech and Nano-bionics, the Biobay provides nanotechnology service platforms that aid in testing, engineering and processing nanotechnology for innovative healthcare companies. Biobay also supports companies with soft services by assisting them with regulatory application and filing, industry-university-institute interfacing, investment-financing interfacing, business promotion, HR recruitment and training, business registration, firefighting and environment protection registration and filing, laboratory safety management, environment monitor, and other professional services.

Several unique industrial clusters have been formed in Biobay, covering drug discovery, medical device companies, nanotechnology, and biotechnology companies. There are nearly 51 companies involved in drug discovery for diseases like cancer and the list includes some of China's top drug discovery companies like Innovent Biologics, Brightgene, and Alphamab. Notable medical device companies like NuHigh, Hob biotech, Careray are also housed in this here forming an interactive bioindustrial ecosystem.

Hob Biotech has become the largest developer and manufacturer of allergy diagnostics in China. Biobay also has companies like Nano-micro, Opto Trace and Huawei. Nano-Micro has researched and developed more than 3,000 uniformly sized nano and microspheres, breaking the long term foreign enterprise monopoly, and filled the domestic blank. It has become the world supplier of mono disperse particles of almost any size and the technology leader whose products cover a broad spectrum of applications.

Biopolis

Singapore's Biopolis has established a reputation as a world-class research hub and has been instrumental in placing Singapore on the global biotech map. Opened in 2003, Biopolis anchors the development of the entire chain of biomedical science industry and plays a pivotal role in establishing collaborations between research institutes and scientific expertise across the globe. The technology park is a thriving ecosystem of public research institutes, corporate labs and a vibrant community of local and international biomedical scientists carrying out world-class R&D.

Singapore economic development board states that research at Biopolis has helped the growth of biologics, pharmaceutical, healthcare, and medical technology industries in Singapore. Biopolis fosters the exchange of ideas and close collaborations among and beyond the research community located there. It houses more than 40 companies in varying sectors of lifesciences and represents the rich source of scientific knowledge and talent that Singapore offers. Many noteworthy pharma companies like Merck, Abbott, Novartis, and Abbvie are located in Biopolis.



Thailand Science Park



With more than 60 companies, three universities and one medical school, the Thailand Science Park (TSP) is the first and Thailand's only science and technology innovation hub till date. The park has high-level activities in the areas of biotechnology, nanotechnology and genomics that provide strong support to the companies located in the Park. The National Science and Technology Development Agency (NSTDA) is located within it and the proximity allows companies to gain access to highly-skilled personnel from around 400 are PhD scientists.

TSP helps to promote collaboration between universities, public agencies and Industries in the form of joint-research, contract research, and technology transfer. NSTDA provides services through the four National Research Centers which are fully-equipped with intellectual and skillful personnel and modern R&D equipment to meet the needs of the private sector. Many of Thailand's major biotech companies are located in the park. Few names include Austrianova, Biodesign and Zoetis. The park also offers companies access to unique privileges and incentives from the Thailand government such as tax exemptions and capital assistance for drug development and research.

Technology Park Malaysia

Technology Park Malaysia (TPM) provides advanced infrastructure and specialist support services to the companies located in the park. The park has an innovation incubation center that aspires to accelerate the growth of technopreneurs in biotech industries to grow from ideation to commercialization.

The park supports companies with a unique comprehensive balance of technology, support and R&D capabilities. TPM aims to encourage the establishment of local entrepreneurship in Malaysia and helps companies with capital assistance and few tax exemptions. With a third of its economy still dependent on agriculture and natural resources, the park focusses on rejuvenating agri-biotech research in Malaysia and offers special policies to support agri-biotech companies.



Moving ahead, TPM plans to establish a Biocity in the country which will be the nucleus of R&D and commercialization of all biotech related products including food and feed production, biodiversity, alternative medicine, pharmaceuticals and nutraceuticals, and genetic engineering. TPM has implemented plans to encourage collaboration between large companies and small and medium enterprises to boost innovation and drug discovery. Many renowned companies in Malaysia like TPM Biotech and Actis Sdn Bhd are located in the Park.

GyoengGi Bio Center

Strategically located in the heart of GyoengGi-do, Korea, GyoengGi Bio Center (GGBC) is an innovative bioscience park designed to nurture Korea's bioscience industry. GGBC strengthens corporate international competitiveness and R&D capabilities by providing infrastructure support and cutting edge technology. The park provides an excellent environment for

research with hi-tech equipment and technologies for new drug development and cell-based assays.

GGBC has supported R&D activities of the bio-pharmaceutical industry by providing them with excellent research infrastructure such as laboratory facilities, analytical equipment, local and global networking services, the most up-to-date technology information, high throughput screening, and medicinal chemistry services. In addition, GGBC has been instrumental in collaborating with academia and industry and aiding the development of new medical interventions by translating academic research into effective end products by the industry. Through efficient academia and industry collaboration, GGBC has been successful in boosting new drug development programs in GyeongGi-do.

In addition to supporting drug development programs in the bio-pharmaceutical industry, GGBC plans to extend service areas to meet the needs of bio-food, industrial biotechnology, and bio-environment industry, and to foster startup and developing biotech companies.

Hsinchu Biomedical Park

Taiwan's Hsinchu Biomedical Science Park (HBSP) is home to a cluster of biotechnological establishments. Strategically located in Hsinchu city in northern Taiwan, the park has access to biomedical universities and skilled human resources. It is located in the vicinity of academic institutions such as National Chiao Tung University, National Tsing Hua University and Industrial Technology Research Institute, Hsinchu County Government and Hsinchu City. Moreover, the park along with Jhunan Biotech Industrial Area (mainly led by the National Health Research Institute) jointly constitute the "Biotechnology Development Belt" of Taiwan.

The park assists companies and startups in business planning, instructional research (research facilities and personnel), clinical trial subjects, clinical trial-related hardware facilities, human resource management, legal affairs-related services, and industrial investment opportunities. The park also helps companies significantly reduce industrial R&D cost by providing adequate infrastructure and facilities for research, increase the successful rate of biotechnology corporations and ensure the formation of biomedical industry in Taiwan by providing a business platform, resource sharing, knowledge exchange, and clinical trial-related cloud-based solutions.

The Taiwanese government offers various incentives and privileges and a one-stop service to provide the finest investment environment for research and technological development for companies in the park, with an aim to nurture the biomedical technology industry and make the park one of Asia's pioneer developers of biomedical research in the 21st century. Many of Taiwan's well renowned biotech companies like Actherm, United Orthopedics Corporation, and Amaran Biotechnology have set up operations in the park. HBSP is instrumental in integrating biotech industries, government, academia, research, and medicine to fill the gaps in the biomedical industrial chain.

Moving ahead, the administration plans to establish several information platforms, including the International Standard Technical Document Management System and Plan for Mechanism of Cooperation in Clinical Trials of Medical Apparatus, Planning and Initiation of the Information System Integration Platform for Biomedical Research and Development, Planning and Establishment of the KM Information System and Planning and Establishment of the Biomedical Science Park Portal. In addition, the administration aims to establish a Virtual Testing Laboratory and Information Platform for Linking Models in Clinical Trials and an Information System on Issuance of Patents and R&D Consultation in order to provide excellent information platforms and services and help biomedical businesses shorten time to market from R&D to production and in turn boost competitiveness.

Brisbane Technology Park

An initiative of the Queensland Government's Smart State program, Brisbane Technology Park offers a unique and vibrant location for established and emerging biotechnology companies. BTP companies enjoy corporate exposure within the



biomedical science community and this facilitates the clustering of business sectors involved in the exploitation of scientific and technological research and development.

Since its inception, the park has developed to accommodate nearly 140 companies, which includes some of Australia's major biotech companies like Cleveland Biosensors, Alchemia, BD Diagnostics, and BioChip Innovations. The park also houses Queensland's first dedicated independent biotechnology incubator i.lab that helps in bridging the gap between academia and industry, thus boosting innovation and new drug development.

The Queensland government encourages early stage companies and biotech startups in the park by offering funding

assistance and tax exemptions.

Genome Valley

Spread over 600 square kms in the vicinity of Hyderabad, Genome Valley is India's innovative biotech park for biotech research, collaboration, training and manufacturing activities. The park currently has over 30 functioning R&D units, with major Indian biotech companies like GVK Bio, Nectar Therapeutics and Dupont having operations in the park.

The park was launched with an aim to promote innovative R&D and expand the potential for bulk drugs and formulations in the country. It boasts of being a world class integrated Science Park with India's most advanced R&D infrastructure.

It has an array of companies in the realm of agri biotech, CROs, biopharma, vaccine manufacturing, regulatory and testing.

The cluster has over 100 lifescience companies. The multi-tenanted lab space buildings and incubation facilities provide growth to large and medium scale enterprises, including small scale and start-ups.

Genome Valley is also known as the 'Vaccine Hub of India', since leading vaccine producers like Biological E, Bharat Biotech and Globion Bio are within the cluster, along with the presence of other companies like Shantha Biotech and Indian Immunologicals in the city. Genome Valley (GV) has two prominent Knowledge Parks - Alexandria Knowledge Park and IKP Knowledge Park.

