PRESS RELEASE

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Biopolis ready for action: Singapore’s biomedical hub set to open

The Biopolis, a state-of-the-art biomedical research hub and a reflection of Singapore’s commitment and vision to the Biomedical Sciences, will be officially launched next week.

The Biopolis is a specialised biomedical community of public research institutes and private research laboratories from pharmaceutical and biotechnology companies. This research community will be co-located in a 185,000 sqm complex in the southern part of Singapore.

“Singapore’s vision to be a focal point for scientific talent and research is now one step closer to reality. We have been actively building up our human capital, intellectual capital and industrial capital to develop the full spectrum of biomedical sciences. The Biopolis will be a key nucleating point to integrate these efforts and catalyse growth in the biomedical sciences sector in Singapore.” said Mr Philip Yeo, Chairman of the Agency for Science, Technology and Research (A*STAR).

Scientists from two research institutes have already settled into the Biopolis. Also in Biopolis are A*STAR headquarters including its two research councils, the Biomedical Research Council and Science and Engineering Research Council as well as its commercialisation arm Exploit Technologies Pte Ltd. Researchers from private sector labs and three other research institutes, as well as the Biomedical Sciences Group of the Economic Development Board (EDB BMSG) will join this biomedical community at Biopolis over the next year.

When fully operational, the Biopolis will house a full spectrum of biomedical sciences research and development activities – encompassing basic drug discovery research, clinical development and medical technology research. The close proximity of some 2000 research talent from corporate laboratories, start-ups and public research institutes will create a vibrant R&D environment to spur new discoveries and speed their translation into application.
Public and Private Sector Research

Five A*STAR research institutes - the Bioinformatics Institute (BII), Bioprocessing Technology Institute (BTI), Genome Institute of Singapore (GIS), Institute of Bioengineering and Nanotechnology (IBN) and the Institute of Molecular and Cell Biology (IMCB) will be housed at the Biopolis.

BII and GIS have moved into the Matrix and Genome buildings at the Biopolis in September 2003. The other three biomedical research institutes will be moving into Biopolis buildings called Centros, Proteos and Nanos by the first quarter of 2004. These A*STAR institutes will be a key anchor of expertise in bioinformatics, genomics, molecular biology, bioprocessing technology, bioengineering and nanotechnology.

The Novartis Institute for Tropical Diseases (NITD) and biotech start-ups, Vanda Pharmaceuticals and Paradigm will also be moving into Biopolis by mid 2004. NITD will focus on advancing medical research in the treatment and prevention of tropical diseases, particularly for multi-drug resistant tuberculosis and dengue fever.

US-based Vanda Pharmaceuticals is an innovative drug development company that develops alternative therapeutic uses for compounds that are off-patent or that have been unsuccessful in initial clinical trials. Vanda will employ 10 to 12 scientists over the next 3 years.

Cambridge-based Paradigm Therapeutics will be establishing a subsidiary in Singapore to accelerate development and further research in the area of drug target validation for central nervous system and metabolic diseases, including chronic pain, neurodegeneration and obesity.

These industry labs will take up residence at Chromos, one of two multi-tenanted blocks within the research hub. Helios, the second multi-tenanted lab is expected to be ready by the second quarter of 2004. These two multi-tenanted blocks will offer a total of 35,000 sqm of lab space to biomedical R&D companies. JTC and the EDB BMSG are in discussions with other local and foreign companies to site their R&D operations there.

Talent Attraction, Training and Synergy

The co-location of industry R&D labs and clustering of A*STAR institutes is the result of strategic design.

“In the knowledge-intensive biomedical sciences sector, top scientific talent is the rate-limiting factor to growth. Our institutes’ core charter is to train manpower and develop top-class capabilities. Locating companies in close proximity to such expertise will create a healthy flow of talent and knowledge into the industry,” explains Mr Yeo.
The eventual density of talent will, in itself, be a draw for other established scientists, post-doctoral fellows and graduate students who are naturally attracted to such vibrant R&D environments. “Singapore’s bright young scholars who are pursuing their PhDs can expect to join this dynamic community of researchers at Biopolis. We hope these scholars will develop as leaders in research and drivers of growth in the biomedical industry,” added Mr Yeo, a strong proponent of training the future generation.

Cross-disciplinary collaborations and cross-fertilisation of ideas are also desired outcomes of the frequent interactions within the Biopolis community at common meeting points and shared facilities.

**Shared Facilities**

A key feature of the Biopolis is the shared facilities that will be introduced in phases. The economies of scale would give researchers in both public and private sector labs access to state-of-the-art specialised scientific equipment and facilities that individual labs would be hard-pressed to operate individually. Common services and resources will also be centralised for economies of scale and greater operational efficiencies.

Specialised shared facilities and services will be introduced in stages. These include flow cytometry, X-ray crystallography, nuclear magnetic resonance, electron microscopy, DNA sequencing, proteomics, histology, laboratory supplies, media preparation, glassware washing and the animal resources centre.

There are currently no laboratories in the research institutes operating at biosafety level 3 (BSL3). However, Biopolis has also made provision for such BSL3 facilities in future. The stringent requirements of such facilities are more rigorously met when they are purpose-built from scratch, as opposed to conversion or upgrading of existing facilities built for a lower biosafety level. The facilities are currently under construction, and will not be commissioned until they are fully validated for use and until staff are trained and certified.

A veritable treasure trove of information will also be available at the biomedical library currently under construction. The library will offer researchers an excellent selection of scientific book titles, scientific journals, research manuals and records.

To facilitate discussion and teaching, a 500-seater auditorium, four 250-seater lecture theatres and meeting rooms complement the top-notch lab facilities available at the research complex.

In addition to laboratories and the shared scientific facilities, one can expect office space, commercial establishments and amenities such as childcare services, food and retail outlets to be introduced over time.
Sky bridges linking all the buildings of the Biopolis and open green spaces provide meeting points and a conducive environment for researchers to gather, mingle and exchange ideas. This clustering of biomedical research talent and activities is designed to nurture multi-disciplinary collaboration, which is a key element of modern R&D.

**Biopolis – signature development of one-north**

Biopolis is developed by JTC at a cost of SGD500 million. It is strategically located close to the National University of Singapore, the National University Hospital and the Singapore Science Parks, to encourage exchange between academia and industry.

The Biopolis is part of a larger development covering 200 hectares, one-north, that will also house Fusionopolis, a media and information technology hub, and provide housing for scientists working nearby.

**Official launch of Biopolis**

The official launch of the Biopolis on 29 October 2003 will be a milestone in Singapore’s Biomedical Sciences sector and marks the start of more exciting times, not only for the researchers who work, live and play at the Biopolis, but also for Singapore, an active global player in the Biomedical Sciences arena.

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