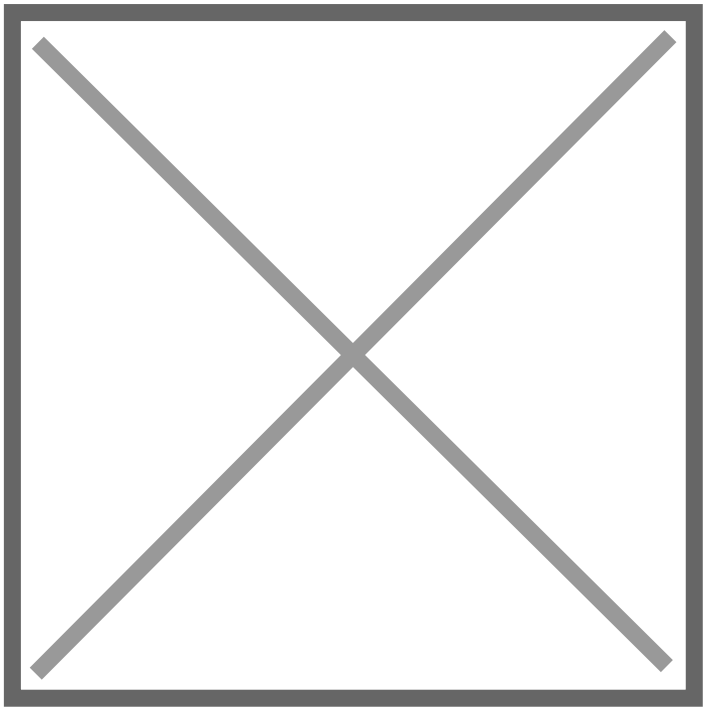
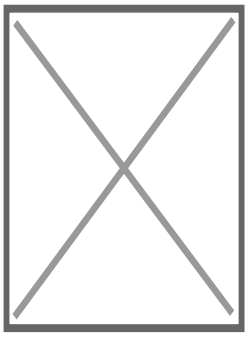
BioSpectrum
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

Biopharma industry boosting cell culture sector in India

06 January 2006 | News



Biopharma industry boosting cell culture sector in India



Companies in cell culture space are leveraging on the growth of the Indian biopharmaceuticals sector.

Encyclopedia Britannica defines cell culture as the maintenance and growth of the cells of multi cellular organisms outside the body in specially designed containers and under precise conditions of temperature, humidity, nutrition, and freedom from contamination. In a broad sense, cells, tissues, and organs that are isolated and maintained in the laboratory are considered the objects of tissue culture.

The cell culture industry, which began in the late 1980s from the utilization of recombinant DNA technology and cell hybridization, is now a significant foundation of the biopharmaceutical annual market of $30 billion. In 2000-03, there were a total of 64 approved biopharmaceuticals for human use. The approved drugs included hormones, blood factors, thrombolytics, vaccines, interferons, monoclonal antibodies (MAb), and therapeutic enzymes. Many of these were produced in mammalian cell culture systems. Now the number of approved biopharmaceuticals has increased. Most of these biopharmaceuticals were protein-based drugs and an increasing number have undergone some form of engineering. These drugs are produced using mammalian cell culture.

The worldwide cell culture market is estimated at $1.02 billion in 2005 and is expected to grow at a compound annual rate of 12.7 percent to cross $1.86 billion by 2010. With advances in product development, demand for specialty and custom serum-free media, particularly in biomanufacturing applications, will drive market growth.

In India, companies like Sigma Aldrich, Invitrogen, HyClone, Alfa Laval, HiMedia Labs, Cambrex, Corning Life Sciences are offering a range of products and services in cell culture space.

SigmaÃ¢â?¬â??Aldrich is a leading product and service supplier for cell culture R&D solutions. These include novel animal component-free media (for CHO, hybridoma, HEK 293 cells, stem cells) for protein or antibody expression, gene therapy and tissue engineering applications. HyClone is a global supplier of cell culture and bioprocessing systems for application in research and production. It manufactures classical media and new serum-free and protein-free media formulated for commonly used cell lines.

Mumbai-based HiMedia Laboratories, one of the few companies of the world possessing the high-tech know-how for manufacturing microbiological culture media, has developed its own technology for manufacture of the cell culture media and succeeded in introducing over 2000 of them over the years. It manufactures and supplies cell culture media, sensitivity discs and allied products.

Pune-based Alfa Laval India offers a range of services from building tailor-made bioreactors to conceptual engineering and execution of complete validation services, as well as providing fast delivery and installation of finished equipment. Corning Life Sciences is another company that offers range of products in cell culture space. Its cell culture line includes dishes, flasks, microplates, Transwell permeable supports, and cryogenic vials, which are versatile, consistent, and easy-to-use. For mass cell culture, it also offers roller bottles, spinner flasks and CellCube - the system that delivers more speed, efficiency, and productivity.

"There is strong growth in cell culture space both from research and industry. It will be a double-digit growth. The emergence of India as contract research and manufacturing place will provide huge opportunity for cell culture suppliers. Similarly the entry of pharma players into biopharmaceuticals sector including vaccines will support the growth of cell culture," said Rajaram, country manager, Sigma Aldrich Chemicals Pvt Ltd.

Lakshikanth Mannady, account manager- India, Corning Life Sciences said, "Cell culture is a major growth area. The reasons being India is emerging as a leading vaccine-manufacturing hub. There are many players and every company is growing with the growth of the biopharmaceuticals sector. "

According to Dr Vivek Varma, business manager Ã¢â?¬â?? bioproducts, Cambrex India Pvt Ltd, the market for cell culture media in India is about Rs 15-20 crore. "The cell culture media is mainly used in private and research institutions. Sigma Aldrich and Invitrogen are leading names in this space in India. We do have presence in this space and growing significantly. Cell lines is another area, which is also growing in the country, " said Dr Varma.

In cell lines, Pune-based National Centre for Cell Science (NCCS), a government research organization has a national animal cell repository. It is the only repository that houses human and animal cells in the country. At present, the total number of culture strains is 1127, of which about 300 are available for distribution to users on registration.

According to industry sources, it is difficult to estimate the size of the cell culture sector as companies offer different range of products and services like media, vessels, cell lines, reactors etc. The sector is expanding and will see a double-digit growth in the near future, with the entry of pharmaceutical companies into the biopharmaceuticals sector.

Narayan Kulkarni

Â