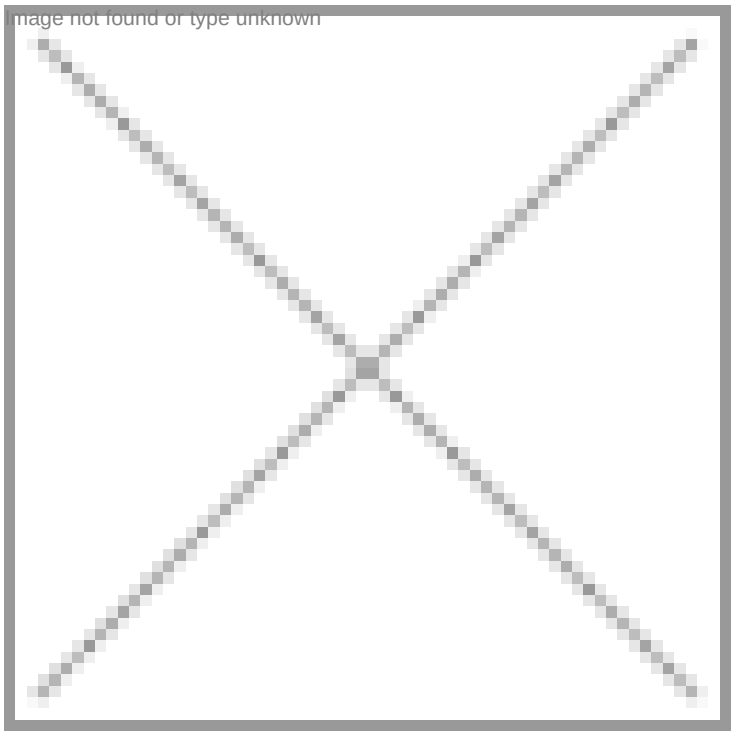
BioSpectrum the business of Bio & Health Sciences

Mission: Boost research on stem cells, biosimilars

13 September 2011 | News



With the help of government fundings, Abexome Bioscience is working towards creating monoclonal antibodies to benefit stem cell research and biosimilars

Snapshotofabexomelaborat Stem cell research holds tremendous potential for addressing various dreaded diseases. At present, many stem cell markers do not have antibodies available commercially and the only option is to import these at high cost. To overcome this hindrance, Bangalore-based Abexome Biosciences initiated a project to generate a library of monoclonal antibodies (mAbs) against human embryonic stem cells. With dedicated centers for stem-cell research being established in the country, the company aimed to fill these gaps by developing antibody tools that would be required by the stem-cell research community. The project got a boost when the company received 25 lakh from the Department of Biotechnology (DBT), Government of India, through the Small Business Innovation Research Initiative scheme.

Abexome is also working on another initiative for developing antibodies and pharmacological assays for common biosimilar mAbs. This work is again supported by the DBT through a combined grant and loan under the Biotechnology Industry Partnership Programme (BIPP) scheme. It received 1.20 crore as funds and believes that this project will have a major impact in fostering development of such mAbs in the country.

With these two projects, the company is aiming at offering cost-effective and quality services and products to the research community in academia and industry. The company, which specializes in the production of recombinant proteins, antibodies and immunoassays, was set up in 2007 with the aim of providing core biology solutions in life sciences R&D. It was founded by a team of scientists who were involved in setting up biotechnology businesses earlier. The company is currently engaged with some of the leading pharmaceutical and biotechnology organizations and reputed academic labs in India. One of its antibody clones was recently in-licensed by a global life science solutions company. For the last few years, the company has grown quite rapidly.

â€œWe are grateful to the DBT for sponsoring this project. For the phase I of the project, we received a grant from the DBT. We think it is a very unique situation in India with so much support available from the DBT and other government agencies for development of new biotech products and platform technologies,â€? says Dr Sujan K Dhar, CEO, Abexome Biosciences.

The way forward

Currently, most of the critical reagents for research have to be imported, resulting in delays and increased spendings. Therefore, both the projects being worked upon by teams of scientists at Abexome are unique and hold great importance in cutting down costs.

In case of monoclonal antibodies against human embryonic stem cells, the company is expecting to establish the proof-of-concept by developing the first set of antibodies with grant from the DBT and then build on it further. â€œWe have already initiated the work and it would take another six months at least to develop the first set of products,â€? says Dr Dhar.

In the project funded by the BIPP on developing antibodies and pharmacological assays for common biosimilar mAbs, the company expects the product to have a good industrial impact and it is expected to hit the market within the next one year. â€œThere is a dearth of high quality indigenous lab reagents and, therefore, to break that barrier we have initiated these projects. With no duty on the products, the cost will be 30 to 40 percent cheaper than the imported ones,â€? said Dr Dhar.