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Bioinformatics market in consolidation phase

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Rapid advances in biotechnology have led to a data deluge which has the potential to radically alter drug discovery landscape and may help personalized medicine to go mainstream in near future. The challenge of tapping this wealth of data to generate new knowledge has given rise to new business opportunities. Arrival of cost-effective human genome sequencing techniques and increasing public and private sector investment in genomics, proteomics and related technologies have given a significant fillip to bioinformatics research and startups in India.

Indian bioinformatics market is focused on biological database creation and management; data analysis and visualization tools; and services and IT infrastructure. Companies from IT and life science sector are gradually gaining traction in bioinformatics industry by developing innovative products and services.

Biological databases are generating significant amount of revenue for the bioinformatics industry. These databases are accessed by the pharma companies at key steps of the drug discovery pipeline and thus reducing time and money involved in drug development cycle. Bioinformatics companies are providing large scale text mining services to populate relevant information in these databases.

The IT angle

Growing volume of data obtained from wet lab and in-silico experiments has given rise to the challenge of storing and managing the biological data. Indian IT companies are addressing these challenges by adapting their existing know-how and developing wide array of new technologies and infrastructure for data storage and management. Cloud computing can be utilized here.

Exponential growth of data has made it a very time consuming and challenging task to find the right information at the right time. Custom tools are being developed to enable researchers to carry out faster retrieval of data from databases. Creating tools for analysis and visualization of complex biological data obtained from these databases is another area of growth.

Despite making great strides, bioinformatics industry is facing problems such as interoperability of data, data standards and competition from growing number of publicly available biological databases. Indian companies are joining global consortiums and forums, and participating in collaborative research to solve these issues. Molecular Connections is part of the Pistoia alliance, which has many bioinformatics and pharma companies as its members - trying to evole these standards.

There are challenges for small and midsized companies to obtain funding to grow further. In spite of all these problems, the Indian bioinformatics market growth story is intact, and is expected to be in double digits in the coming years. Market seems to be in a consolidation phase and one can expect to see some more consolidation in near future.