

News Details

Indian biotech needs to adopt Collaborative Model

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HYDERABAD-BASED Bharat Biotech International Limited (BBIL) is a multi-dimensional biotechnology company specialising in product-oriented research, development and manufacturing of vaccines, bio-therapeutics and biopharmaceuticals. BBIL has taken the route of Genetic Engineering to develop next-generation vaccines and bio-pharmaceuticals through original and collaborative research.

The company founded and headed by Dr Krishna M Ella, a technocrat in 1996. Alumunus of the University of Wisconsin-Madison, Dr Ella has contributed to biotechnology on a global platform. He brings with him a vast and varied work experience ranging from active research to teaching, spanning over two decades, in both India and the USA.

He has earned memberships to various high level commissions including, National Task Force-Industrial Biotechnology, Indo-USA Vaccine Action Program, National Health Mission, AP Task Force on Drugs and Pharmaceuticals, Confederation of Indian Industry-Health Mission to name a few, and many prestigious honours and awards like the National Research Service Award (NIH-USA).

In conversation with Y V Phani Raj of Chronicle Pharmabiz Dr Krishna M Ella explains how he views the vaccine industry, investments in R&D; in biotech and pharma sectors, trends in bio-pharma segment, achievements of the company so far and the products it wishes to develop. Excerpts:

What is the Indian scenario with regard to vaccines?

I think we are on the right track. We're emerging on the global platform.

In fact, our medical research institutes and pharmaceutical industry are bracing to emerge as a major hub for vaccine production to serve the global market.

The vaccine technology too is changing, creating a push from the bottom up to produce new products. The companies are working rapidly with new combinations where they can. Technological changes and market changes are driving the companies into larger and larger aggregates, and there are predictions of maybe one or two very large vaccine companies emerging in the future.

What progress is Bharat Biotech making in vaccine development?

Bharat is right now working on commercially developing a vaccine for rotavirus. We are working with CDC Atlanta, All India Institute of Medical Sciences and Indian Institute of Sciences, Bangalore. Standford and the National Institute of Health are supporting this effort. Funded through CVP-PATH by Bill & Melinda Gates Foundation, the project is progressing as per its milestones and we will give it for clinical trials by the end of this year. Rotavirus vaccine would be a tremendous achievement.

There is a growing demand for combination vaccines. R&D; efforts are also on for developing 'effective' vaccine for tuberculosis. In India, efforts are on to develop vaccines for meningococcal and neurococcal vaccines. There are, as you know, focused efforts to develop vaccines for Japanese Encephalitis, Rotavirus and Malaria. We are happy to tell you that Bharat Biotech's team is right now in the forefront in developing the vaccine for malaria.

What are your observations on R&D; in pharma and biotech sector?

Research is really the key driver for biotechnology sector. And India is striding forward confidently. We are making great progress. Companies have made tremendous progress in this arena. Many of our scientific leaders like Dr Mashelkar are all visualizing India to be the hub for R&D; in the region.

Indian Biotechnology should leverage the IT strength displayed by the Indian software industries. Further due to the availability of human genome project data India is in a position to develop new products that are globally acceptable. Keeping this in mind, biotechnology in India is now focusing on knowledge creation and retention. A think-tank comprising of visionary groups from academia and industry to strategize the work plan for next five years is also being contemplated.

Increasing, business success depends upon the ability of bioentrepreneurs to bring all these pieces together and to use them collectively to make profitable products. Unfortunately, many of the biotech companies are small and fragmented unlike pharma industry. Mergers may lead them to outsource their R&D.; It is the time that Indian pharma companies in the country invest in productive R&D; partnerships with biotech companies where original discovers become viable products. The vast potential of the Indian herbal drug industry languishes due to the disinterest shown by the Indian pharma companies in the multitude of opportunities.

What is the trend in bio-pharma sector? How successful are the industry-institution tie-ups in medical biotechnology sector?

The bio-pharma sector is undergoing a major transition - perhaps the greatest since it began. Strategic tie-ups between big pharma companies and small biotech start-ups are already happening for contract research and manufacturing. It would be wise to have synergy between the pharma and biotech companies to avoid cannibalization and killing effective products. The pharma industry should not lose focus at the market place.

"Learning" processes and the ability to change approaches and objectives to exploit new opportunities are the essential strategies. Companies need to base themselves on the highest scientific skills that they can gather. Excellence in science alone, however, is not enough. It also needs entrepreneurial technology management and marketing coupled with entrepreneurial fund raising.

There is a great need for the industry-institution tie-ups in medical biotechnology. Bharat works with prestigious organizations such as CDC Atlanta, Stanford University. "Collaborative model" is the futuristic model that Indian biotech industry needs to adopt.

The upcoming biotech incubator in Hyderabad is a positive development. This is sure to promote growth in this arena.

What is the progress in Bharat Biotech's proposal to set up a facility near Johannesburg in collaboration with Mvelaphanda Holding?

Talks are in progress. We hope we shall have something to announce soon.

What measures do you suggest for making India a vaccine hub?

The first and the foremost is to initiate regulatory reforms. The need of the hour is to have a multidisciplinary expert panel to evaluate and approve the manufacture of vaccines. What we need is a focused approach and speedy approval under a single window. And getting trained-manpower is a growing concern. Efforts must be made to standardize industry-specific training.