Dr Kiran Mazumdar-Shaw is an Indian entrepreneur. She is the chairman and managing director of Biocon Ltd. In 2004, she became India’s richest woman.

From a small business operating out of your garage into a US$150 million company, what do you think is the key to your success?

My determination to succeed and my willingness to take risks have been my strengths. I am also very fortunate to have an able and talented team, which has been instrumental in helping Biocon scale new heights.

You had different challenges to face in your career. One was not being a business school graduate, another was embarking on a career which was not lucrative at that time. What other challenges did you face in your entrepreneurial journey?

My challenges have evolved along with the evolutionary growth of Biocon. Initially, I faced credibility challenges: my youthful age, my gender and my unfamiliar business model posed enormous obstacles. Once I overcame these, I then had to face technological challenges of trying to build a Biotech business in a country where the infrastructure was too primitive to support a high tech industry like biotechnology that was so dependent on uninterrupted, high quality power, high quality water, sterile labs, imported research equipment, advanced scientific skills, etc. Today, our challenges address those posed by new medical wisdom: addressing unmet medical needs, researching new drugs, new drug delivery systems and new therapies. Overcoming each of these phases has been a rich learning experience that has helped us to develop world-class expertise in biotechnology.
How did you overcome these challenges and who were the people who played a major role in helping you along the way?

When I look back at my early days, I feel I was self-assured and determined to make a success of my new venture. My family was a great source of support as were my friends. Several people have played key roles in addressing these challenges: A banker, Mr Vaghul believed in my business model; my first employees were willing to share my vision; the head of a government scientific body, Professor Mashelkar, was willing to support my research endeavours by providing soft loans and grants.

What do you think about the level of research in biotechnology in the Asia Pacific? Is it anywhere on par with advanced parts of the world such as Europe or the US?

I believe discovery-led research is certainly getting a lot of attention with biopharma companies in the Asia Pacific. The advent of product patents in countries like India has played a key role in initiating this trend. Moreover, companies are beginning to realize that generics is a crowded space with eroding profitability and the most promising differentiator is innovation-led drug development. Investors are also ascribing premium valuations to companies that are developing novel molecules. Whilst academic institutions are still lagging behind US and European academic institutions, the recent trend of biopartnering has allowed research conducted in the Asia Pacific region to attain an equitable level. The biotech sector is growing at a faster pace (46% increase in revenue last year) in the Asia Pacific region compared to anywhere else in the world, including the US and Europe.

Among the countries in Asia Pacific, can you name the countries that are doing well in the biotech industry?

Ernst and Young has named India as one of the five emerging biotech leaders in the Asia Pacific region along with Singapore, Taiwan, Japan and Korea with China not far behind. The mounting cost of drug discovery and development, extended timelines for bringing new drugs to the market, fierce competition, pricing pressure, and funding challenges have combined to prompt pharma companies in the West to look to countries beyond their own borders on multiple fronts. This development places countries in the Asia Pacific region at a particular advantage.
Which other countries do you think are doing well worldwide?

I think that strong government support has been critical to the success of the biotechnology industry in countries like Israel, Canada and Australia and these countries are fast emerging as biotech leaders.

What do you think is the Indian government’s role in promoting the biotech industry?

The regulatory environment is well in the process of getting streamlined in India. The Mashelkar Committee has made some good recommendations to improve the regulatory regime in India. It is heartening to know that the Indian government has now recognized the success of the biotechnology industry in the country and today a National Biotechnology Strategy Document has been drawn up as a combined effort of all the stakeholders (government, industry, academia, NGOs) with a sense of urgency. Given the right impetus, the Indian biotechnology sector would undoubtedly find pride of place in the global biotechnology scenario.

What is India’s share in the global pharmaceutical market and how far is it going to increase in the near future?

The sector today comprises over 300 companies generating revenues of about US$2 billion which is estimated to reach US$5 billion by 2010. The Indian biotech sector is growing at a pace of between 35%—40% per annum for the last three years. The current fiscal year alone saw revenues crossing US$2 billion from the previous year’s US$1.5 billion. India is already the world’s largest vaccine producer and sees itself as being the largest bioprocessor in the years ahead.
The world is slowly merging to becoming a single market. Is this an opportunity, challenge or threat? What do you think globalization means to the biotech industry?

I think globalization is a good thing for the industry. Opportunities for affordable research that India offers is encouraging overseas pharma and biotech companies to set up basic operations that could evolve into integrated arms of their own R&D efforts in the fullest sense. Astra Zeneca and GE, for instance, already have significant research centers in India. Several international biopartnerships already dot the Indian biotech landscape with more on the anvil.

The biotech sector is reliant on a strong partnering model. Indian and US/European companies can derive enormous synergies in combining their research and commercialization skills. Companies like Biocon are already partnering with US companies to expedite the process of drug development and expand the scope of platform technologies to a large number of new drugs using the lower cost base that India provides — stretching the dollar so to speak to augment the probability of R&D success. What is even more important to highlight is the fact that such partnerships are enabling US/European companies to extend their survival timelines and rapidly emerge as financially sustainable and eventually very profitable companies. India also ensures that the cost of failure is extremely affordable. This allows platform technologies to be evaluated for a number of molecules in addition to clinically evaluating new molecules. The partnership model is about using cost arbitrage to deliver value arbitrage.

What are the current key areas of R&D that Biocon is focusing on?

Biocon’s pipeline of discovery-led research products is both extensive and exciting. Leading this effort is the recent launch of — India’s first cancer drug for head and neck cancers. This product marked Biocon’s foray into the oncology market and furthermore, has established us as an innovator company.

Other programs that are moving up the development path are oral BNP, BVX 10, BVX 20 and Anti-CD6 monoclonal antibodies. Oral insulin IN 105, is nearing completion of Phase I, first in human studies which will provide vital information to enable progress to the next phase.
[Interview]

Where do you think Biocon will be five years down the line? Do you have any plans for future expansion into other countries or collaborations?

Biocon is devoted to building cutting edge capabilities, global credibility and of course building global scale in our manufacturing and marketing capabilities. We are on our way to making Biocon a global biotechnology enterprise and my dream is to see both India and Biocon being ranked amongst the top league in the biotech sector. We are already geared to attain global scale. We have Asia’s largest Insulin facility and statin facilities. We are also the largest perfusion based antibody production facility in Asia. Our ambition is to be among the top 10 biotech companies globally. There have been a few collaborations with companies in the US, Middle East and China. Other expansions will be discussed at the appropriate time.

India is a strong player in generics. How does Indian pharmaceutical companies deal with IP and patent issues?

So far, IP has been the main deterrent. Foreign VCs believe that there is not sufficient patent protection and access to patent litigation in India. However, in recent times, this perception is slowly changing and there is an increased interest in investing in Indian biotech companies. I am confident that things will be significantly different in terms of investments in the Indian biotech sector as we go forward especially as more Indian biotech companies enter global markets such as the US and Europe.

Biocon’s growth escalated when you decided to go public. What made you take this step?

It was evident at the time of our IPO that in order to develop our pipeline of research programs, we would need to access capital markets. Our ability to generate profits from our services and products businesses gave us the confidence that we could support our growth and provide shareholder value.

Between biotechnology and IT, which one has a rosier future?

Biotechnology is a very different segment and cannot be compared to IT except for the fact that it is one of the two pillars of the knowledge economy along with IT. Unlike IT, biotechnology is inherently dependent on intensive R&D, strong regulations, long gestational timelines and societal sensitivities. I certainly believe that the biotechnology sector is poised for tremendous growth.

Do you have any advice for young aspiring biotech entrepreneurs?

If you have a vision, a plan and the conviction, you should follow it and success will come to you. Biocon is testimony to a vision that a team of like-minded people with the same drive to excel can achieve its goal.

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