

# Interview: Kiran Mazumdar-Shaw, Chairman & Managing Director, Biocon

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**If we look back at the conditions under which you founded Biocon in 1978, we see a young woman with a seed capital of only Rs. 10,000 in a garage in an infrastructure deficient Bangalore. Both India and Biocon have come a long way since then. How different is the situation for today's entrepreneurs?**

I think it is a very exciting time. When I started in 1978, India was considered to be a developing country. Today, India is an emerging economy. Many things have changed in the meantime. First of all, access to capital is much greater today than back in the time. Investors obviously are very interested in India as one of the rising, emerging economies, and I believe that India's place in the pharmaceutical world globally is very well-accepted and received. The earlier credibility challenges that India used to experience in 1978, have been removed. The path for today's entrepreneurs has been cleared. They no longer need to prove themselves, and can instead build on the reputation and recognition that we have earned over the past few decades. Today, India has made its presence felt in the pharmaceutical market. India's challenge ahead is really about innovation. In the generics space there is nothing to prove. Now it is about proving your capabilities and abilities in the innovation space.

**A large part of this innovation is coming from the biotech industry. In this space, we also see regional hubs in Asia developing, with examples of South Korea, Taiwan and China. Many of these places have enjoyed strong governmental support. What are India's main assets to emerge as a biotech hub in Asia?**

Innovation is, at this point in time, both a significant opportunity as well as a tough challenge. Risk is an inherent part of innovation and the world at large, in particular the investor community, is very risk-averse. Therefore, governments have to play a very important role for providing risk capital. Countries like China are providing much greater risk capital than other BRIC economies. India provides such capital to some extent, but the ability to manage risk will only become greater once we get some innovation to succeed. It is thus the success of innovation that will bring more money as risk capital. India has still not reached the critical mass of taking innovation to the market. Neither

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has China for that matter.

I therefore believe that we need a two-pronged strategy. The BRIC economies need to have local successes which can be taken globally, which is a model Biocon has succeeded at. Biocon's BIOMAb EGFR<sup>®</sup> was India's first anti-cancer, therapeutic monoclonal antibody-based drug for treating solid tumors of epithelial origin. We now want to expand on this initial success. For example, we have just completed studies on gliomas and glioblastomas, while we are also looking into ways to expand the label into areas such as cervical cancer and other tumors. The success of this molecule in the Indian market will allow us to take BIOMAb to global markets. There is a lot of interest to see how big pharma can partner with us to take this very exciting antibody global.

BIOMAb was first introduced in India and has given us the confidence to develop other antibodies. Right now, we are doing a phase III clinical trial in an anti-CD6 antibody, for psoriasis and rheumatoid arthritis. Beyond that, we are also going to develop a particular antibody for multiple sclerosis as well as other auto-immune indications. To conclude, this could actually start a catalyzing effect for innovation in India. Turning a local success into a global success would be the final endorsement of innovation.

Biocon also has a very ambitious oral insulin program, with the IN-105 pill. We just shared large-scale trial data, where we could not meet the primary end-point because of a very high placebo effect. Yet, we have established a number of secondary end-points which established proof of concept. The drug works, so we will continue with its development. It will be a big game-changer if all works well.

**On the insulin side, Biocon recently became the star of a USD 200mn deal with Pfizer in October 2010. With the deal, you took Pfizer back into this USD 14bn market. What opportunities do you see for Biocon to help big pharma in overcoming their current patent cliff, and guiding them onto new pathways?**

Everyone is talking about the USD 15bn patent cliff that most of big pharma is facing over the next two years. It is a serious challenge: while the regulatory barriers have become steeper and the success rate of innovation has declined, a lot of the patent protection is disappearing for blockbusters. I think a new paradigm is emerging.

Today, the returns on investment (ROI) for R&D are just not justifiable any longer. Last year, big pharma spent roughly USD 50bn in R&D, while less than 10 novel drugs were approved. This makes both pharma and investors very risk-averse to bet on a certain pipeline. This opens up many opportunities for companies like Biocon, which enjoy a more affordable risk of innovation from being based in India. This is the right kind of environment in which to pursue innovation, which is why we are so excited about our current pipeline today.

Besides the aforementioned products, we are also taking some really big bets by looking at models where we partner with other companies. For example, we are now in partnership with Amylin to develop novel hybrid peptides which address diabetes and obesity. We are also working together with a small Johns Hopkins spin-off to develop tumor vaccines. Other companies that look for help during the development phase have also been approaching us. Six years ago we also started partnering up with a company called Optima. I am delighted to say that they are about to receive US FDA and EMA for their antibiotic. For Europe, the product has now been out-licensed to Astellas. These examples showcase how collaboration can create win-win situations.

Biocon has always looked at partnering as a very important part of its global business strategy.

**What exactly do you look for in these partners?**

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In the first place, we look at what kind of innovation these players have developed. Then we investigate whether there is a synergistic and complementary fit with these companies. Afterwards we look at what we can do with these products for these companies, both in terms of taking the innovation to the market as well as looking at what other marketing opportunities we can engage in.

The Pfizer deal was a great example of our approach to partnering. We recognize very clearly that taking biosimilars to the global market on our own would not have been optimal. While we would have been very successful in limited markets such as India, we are already starting to see that getting into other markets, even emerging ones, requires local knowledge. Therefore, we started partnering with a few local companies. But once we looked at the bigger global story, we realized that we needed a global partner. Because diabetes is a huge disease, it requires very strong marketing machinery and infrastructure. Consequently, Pfizer made abundant sense to us.

The deal with Pfizer endorsed a number of things. First of all, the size of the deal created very valuable assets. Secondly, the deal structure was very unique. With the deal, Pfizer relied on Biocon to help a lot with the commercialization aspects of development, such as manufacturing, regulatory work, and so on. Pfizer would just focus on what it does best, which is marketing. Third, Pfizer's trust in Biocon showcased the inherent qualities Biocon has to offer.

**Do you feel this could be of certain benefit to the further development of the IN-105 oral insulin pill?**

Absolutely! IN-105 is the next-generation approach to insulin. Because a lot of its development took place in India, it has been very affordable. Moreover, piloting development in India de-risks the program for any partner that wants to take the asset to the global markets.

The drug development paradigm has to undergo a change. Companies will have to move away from a vertically integrated model to a partner model. Smart external resourcing will become increasingly important, as in-house development remains very expensive and slow.

**When we met you in 2006, you expressed aspirations to become the Genentech of India. Does this still hold true?**

Biocon sees itself as a pioneering biotech company, just like Genentech. We would like to be seen as an Indian biotech company that has grown massively in size, which is what Genentech also did.

**In the meantime, Genentech has been acquired. How do you cope with the pressure of having become an attractive acquisition target?**

I do not think we have the same problem as Genentech. That company went through phases where it needed a lot of capital injection, which is what Roche brought to the table a long time ago. It was, in fact, already a part of Roche for many years, before the full acquisition took place.

Genentech was innovative, pioneering and developing a very interesting pipeline of products. This is the aspect of Genentech I was alluding to.

**On a more personal note, you have risen to become one of Time's Top 100 Most Influential People in the World. You have won prestigious awards such as the Padma Shri and the Padma Bhushan. Yet, you are still here to run the company on a daily basis. What keeps you going?**

All of us first-generation entrepreneurs feel a very strong emotional bond with their companies. You will always do as much as possible to take the company to the farthest possible point.

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Biocon's biopharma story is only a decade-old, which is nothing in the life of a company like ours. I feel I need to be active for at least another decade to make sure I will be able to take a lot of what we are doing today to the next level.

### **What will this next level be?**

What we have achieved so far is only the starting point. The critical mass we have built in biopharma raises for us the question of how we can now become a large biopharma company. Once again, I would like to see Biocon as the Genentech of Asia. We are the largest in Asia today as well, but we are not large when measured by US standards. This is the level we should be aiming for. We need to make sure that we have at least a billion-dollar revenue base, while our market cap needs to become a multiple of what it is today. Although we are close to a 2-billion-dollar market cap company today, I believe we need to become much larger to gain in credibility.

### **Apart from revenue growth and market cap growth, we also see that Biocon has a strong sense of social engagement. The Biocon Foundation clearly plays a very important role. Why is this so important for you?**

As a first-generation entrepreneur, you are always very aware of the fact that, as you develop, your community will also benefit from what you are doing. You definitely want to belong to a community which is as successful as you are. I do not personally believe that you should be the single shiny example. Instead, you have the responsibility to lift the community with you, which is why I like to give back.

The difference I would like to make is in the area of healthcare, because I am very concerned that a country of this size does not have a national healthcare policy. We do not have access to good quality, affordable healthcare in India. We, unfortunately, continue to have the largest number of bankruptcies because of healthcare costs. You cannot have an emerging economy where people are dying of starvation and lack of access to basic healthcare. If you really want to be that leading global economy by 2050, then you must have a system that at least provides basic healthcare, education and growth.

### **The country also needs entrepreneurs with the skills and willingness to take India forward. Do you have any final comments on the entrepreneurial spirit in the country?**

I think India has a very vibrant entrepreneurial energy. When you compare China and India, I think China has become what it is because of the government, while for India it is the case despite the government.

The entrepreneurs are shaping India. We do not have the requisite capital like other parts of the world. However, what we say to the government is: "Do not interfere or put roadblocks, just enable".

The entrepreneurial spirit of India is what built this company!

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