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"Become entrepreneurs, don't fear failure"

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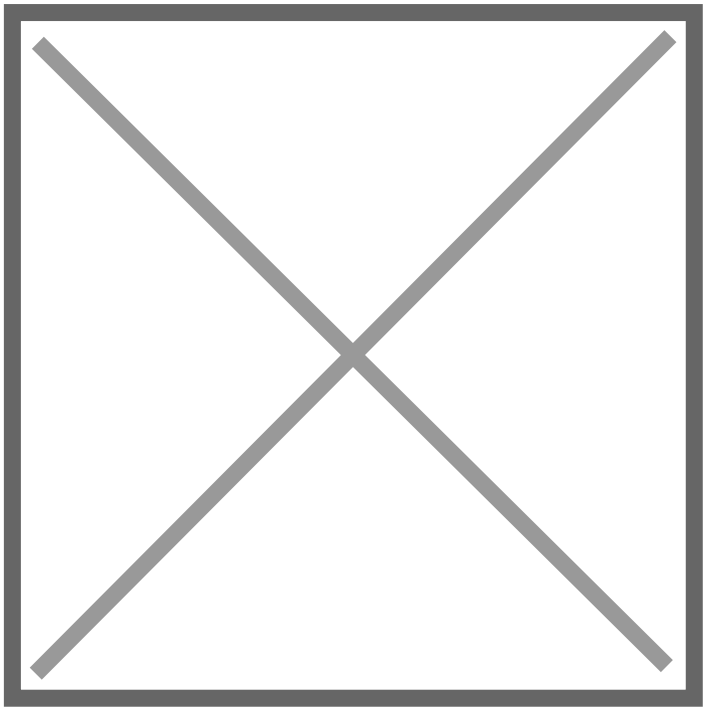
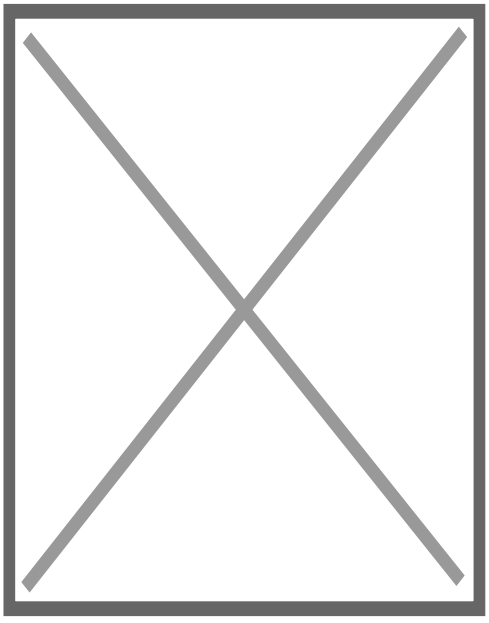


"Become entrepreneurs, don't fear failure"



Biocon CMD Kiran Mazumdar-Shaw's advice to thousands of students pursuing their biotech courses in the country.

In a free-wheeling interview with Janani Ravindar, Raashi Sreenivasan, Ramesh Krishnan K and Vishal R Patel, all third year Industrial Biotechnology students at Anna University, Chennai, for their magazine, Verve, the Biocon chief outlined the shape of things to come in Indian biotechnology. Excerpts:

The media gives a green picture of biotechnology. But what is the ground reality with respect to generating employment and where do you think the thrust of the biotech boom lies?

The way I look at biotech and life sciences, I feel India is well positioned in terms of global leadership in this sector. This is a huge segment encompassing agricultural biotech, industrial biotech and pharmaceutical biotech. The kind of opportunities and the growth projections in this sector are huge and, therefore, the dependence and the need for a large number of people to

get into this sector are also large. It is a big picture. It is all the more relevant today as companies are expanding and assuming a global scale. Biocon Group itself has several companies like Biocon, Syngene and Clinigene. Syngene is a contract research company that is expanding hugely in terms of scientific manpower. Clinigene is a clinical research organization which is also expanding in a big way. Contract research companies are growing by leaps and bounds. The reason being, the global pharmaceutical patterns are changing and the pharmaceutical companies clearly realize and recognize the act that they have to increase their bandwidth and bring the cost down. The only way they can do it is by outsourcing services to companies in countries like India.

So the number of scientists, we will need to support such a sector, will increase exponentially in time. In the clinical development of drugs, companies have to bring down the cost. This can be done by doing a large part of the drug development in India. So we need a large number of clinical research assistants, who can oversee clinical trials, a large number of investigators who can conduct such trials, and bioanalytical scientists, who can conduct the trials, get back to labs and measure the effects analytically.

Coming to the different fields in the sector where the thrust lies today, we are aware of the climate changes and environmental considerations. One of the biggest factors that will have a positive role to play here would be industrial biotechnology and enzyme biotechnology. Biofuels, in terms of alternate fuels, is going to be important. Diagnostics is going to play an important role. So there are a lot of opportunities for scientists and technologists. Here, we also need to address the fact that these scientists and technologists should be in tune with the opportunities available. We need to have specialized academic education which provides employable workforce. Anna University is certainly an institute that is outstanding in terms of the quality of education that is imparted. People need to be trained in some form of a specialization to make optimum use of the plethora of opportunities available, which unfortunately is not happening today in many institutions.

What would be your suggestions for the academia that could charter a progressive path for biotechnology in India?

When it comes to academia, it has more to do with the approach students have. Take genomics for example. Everyone would know that it is the study of genes and chromosomes, but what many are not looking at, is how it can be applied in businesses. Today genomics is a powerful tool to develop new drugs and to look at diagnosing new diseases. People should expand their minds. In the industry, we expect people to think radically to add value to the company. How are we going to educate people in learning the new sciences? That is what we should be looking at.

I would also like to see the government doing a lot more for our teachers because they need to be supported. They are the ones imparting the knowledge and they need to be compensated adequately. It is not only in terms of the pay. They should also be allowed to run consultancies and take sabbaticals. They are doing such a fantastic job for the country and its future. So they should be rewarded.

Has the Indian biopharmaceutical industry made a mark in the world? Why is it that we still need a multinational collaboration to release a drug?

The Indian biopharmaceutical industry has certainly made its presence felt in the world. As for the collaboration with other MNCs in the world, it is because we in India have been used to generic drug development. The whole concept of novel drug development is very new to us. Since we are used to taking the abbreviated path of generic drug development, we do not understand the risks involved in new drug development. We do not need to go through the whole regulatory process in the former. But we (Biocon) have decided to go in for new molecules. We partnered with a Cuban research institute, which had developed some new antibodies. We decided to take the risk of bringing those antibodies here and taking it through the regulatory path. We had no surety of its success or failure. We just knew that the probability of success was high. The clinical trials took a long time-about two-and-a-half years--and if they had not been successful, we could not have entered the market. Fortunately for us, the outcome was positive. The indications we launched it was for a certain head and neck cancer. So now we need to do clinical trials to make it work for other cancers. Most of the companies are hesitant to spend so much time and money. That is why we have so many companies following the generic path. Also, we do not have many funding mechanisms to fund such long-term plans. We are used to the IT model nowadays. But that is a services model. Because of the fear of failure in research, we are not getting many investments. The capital market in the country is risk averse. The whole mentality right from share holders to the financial investors is not to take risk. As long as we have a fear of failure and are averse to taking risks, we can never develop drugs without a partner.

How do we ensure the accessibility and affordability of drugs for the common man, especially in the developing world?

That could be done if the drugs are developed indigenously and that is what we are doing. We have developed the cancer drug in India to make it accessible to the common man. For instance, we at Biocon adhere to the strategy that we may license the product to others but we will not give away certain territories like drug development. We have what is called the "India

strategy", where we develop drugs in India to bring down the costs. Even as I say this, I will add that we also have to be realistic about it. We cannot be too judgmental because the companies have to take decisions that are good for their shareholders too, and that may not be always good for the public.

Do you think this wave of entrepreneurship is India is only a temporary phase or is it here to stay? What are the hurdles an entrepreneur would face today? Tell us about the setting up of Biocon and the challenges that came with it.

Entrepreneurship is a very exciting field. It allows you to create and build things with your own hand. But it is not an easy business. Certainly in the early years, it is very tough. For instance, I started my company in a garage literally. It is not an exaggeration that very often I did not have money to fill petrol in my car. I used to travel by train to reach places across the country. Those were tough times but when you are building something on your own, it is very exciting. I do not look at my early years as times of hardship. I was willing to do anything and everything to make it work then. That sense of purpose and challenge is what entrepreneurship is all about. I would say this to any young entrepreneur, to go about it with a spirit of challenge and purpose. Every time you overcome a challenge, you have a sense of fulfillment and achievement. Today it is just getting bigger for me, but when I achieved something initially, that was very exciting and rewarding. So, entrepreneurship is not any easier now than it was way back then. Those days the challenges were different. Those days it was about being a pioneer. That path involved a lot of risks and experimentation. Today we have a lot of companies to look at, learn from and emulate, but it is also competitive today. This has become a fiercely competitive segment now. One has to constantly think of differentiating herself or himself from the rest. So, each time brings with it a new set of challenges.

What is your message to the student community?

First and foremost, the fear of failure should be erased from our minds. In India, we have inherently been raised with this fear. But in the western world, people take that as a learning experience and that should be emulated here too. Take my case. My own life has been a series of failures. I failed to get into medicine. So I took up brewery. I failed to become a brew master. So I set up my own company. I also failed to get finance initially and after I got that, my technology did not work the first time. So we need to learn from failure, pick up from there and move ahead. We need to obliterate this fear of failure in us. We should not get disillusioned by failures. We can always rise above that and move on.

Another observation is that, many students pursue science at an academic level but not as a career. I would like to see more students pursuing a career in science and see that they do not get delinked from it. Today, science also pays well. It is a very exciting sector. Not everybody had the ability to pursue science. But those who pursue science should keep in touch with it. It teaches us a lot.