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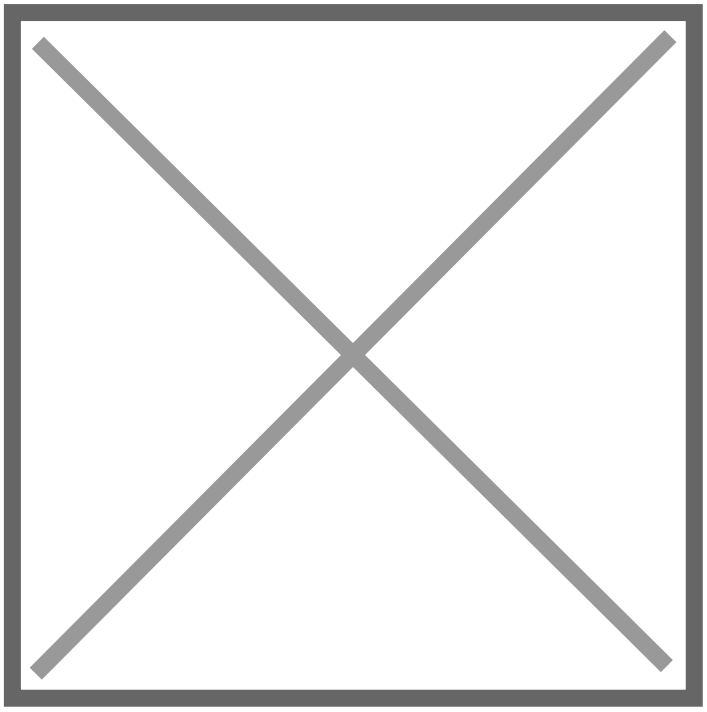
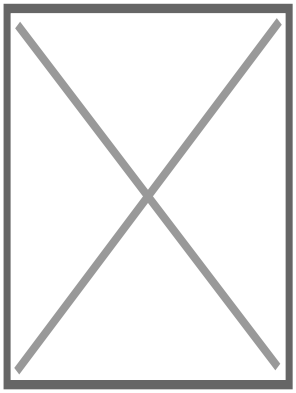
Biotech education booms

05 August 2010 | News





On an early July morning, I got a call from a school student, Prithu Baruah, in a small town in Assam's Jorhat district. He had just finished his schooling and was planning to enroll in a college. He had read a copy of BioSpectrum recently and he had made up his mind to become a biotechnologist. The telephone call was to get a copy of BioSpectrum's Education and Career Resource Guide (ECRG) and also get some insights about the biotech industry.

I sent him a copy of the ECRG along with Life Sciences Resource Guide (LSRG) 2010 to give him a better idea about the industry. The copies, sent by "speed Post", reached after seven days due to the remoteness of the location. He did not favor the soft copy of some of the relevant articles because the internet connection there is not very reliable and so was not much use to him.

During the many conversations I had with him, I was impressed by his admiration for the biotech industry and his determination to be part of it. And he wanted the results of the BioSpectrum Top 20 Biotech Schools Survey 2010 to make up his mind. There are hundreds of thousands of students like Baruah across the country who are opting for a career in biotechnology after reading about the industry's recent achievements.

The results of the 6th BioSpectrum Top 20 Biotech Schools Survey is presented in this edition. One of the highlights of this year is our estimation of the biotech education market itself. With over 500 institutions, both in public and private domains, offering biotechnology-related courses at the graduate level (BTech), post-graduate degrees (MSc and MTech and higher education, the biotech education sector has become a very vibrant one. We have estimated that approximately 40,000 students joined biotechnology courses in 2009 (we have excluded the entire gamut of three-year graduate courses in biology offered in 6,000 colleges). Overall, there are over 150,000 students pursuing various biotech courses and they spent over 1,050 crore in fees in 2009.

This is a conservative estimate as many private institutions are believed to be charging four to five times the average annual fee of 100,000 upfront to provide admission. The year 2009 was a subdued one due to the economic slowdown and hence such upfront payments could have been less. Also, the enrollment in 2009 was 15-20 percent lower than that in 2008 due to the uncertain economic conditions that prevailed last year.

There is certainly a churn in the biotech education market. Due to the large number of unfilled seats last year, some prominent Bangalore-based institutions are planning to discontinue their biotech courses this year. At the same time, there are other educational groups, such as the Oxford College of Science in Bangalore, which are bulling on the sector and gearing up to meet the expected rush by investing in highly sophisticated modern facilities. More than half the students in almost all the prominent institutions in Bangalore and other southern cities are from the north, and north eastern parts of the country.

Majority of the biotechnology courses are taught in institutions located in the southern states. But the top institutions, ranked

by BioSpectrum, in both public and private sector are evenly distributed in the northern, southern and western parts of the country. The eastern region continues to show negligible interest in biotechnology. In fact, the No.1 private institution this time is Jaypee University of Information Technology based in Solan in Himachal Pradesh. The No.1 institution in the public arena is the Institute of Chemical Technology in Mumbai. This institution was earlier known as the Mumbai's University's Department of Chemical Technology.

There is a huge demand for biotech courses is revealed by the fact that for every seat offered in the top public institutions, there are on an average 40 applications. The pent up demand for quality education in biotechnology is met by the nearly 400 institutions which have come up or started offering biotech courses in the last 10 years.

Despite these huge numbers, the biotech and allied industries are in a position to absorb less than one-third of the students passing out each year. About 40 percent of the students go abroad to pursue higher studies and bulk of the remaining students are absorbed by the software industry. This is the something the biotech industry leaders and policy makers should analyze and formulate strategies to retain the biotech-friendly human resources.