

Training institutes don't give any practical training

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Can manpower shortage slowdown Indian biotech industry, targeting \$5 billion revenue by 2010?

Biotech industry is clearly starved of talent. Over 70% of the two lakh Masters degree holders in the country are jobless and frustrated. With media and industry continuously building hype around the nascent biotech industry, several new courses in the subject have sprung up.

Various universities, All India Council for technical education (AICTE) and University Grants Commission (UGC) are giving approvals to several colleges to start courses in biotechnology. This has built a lot of hype and a huge rush among students to opt for biotechnology courses. However, these colleges do not have proper infrastructure or the wherewithal to groom the students. Many colleges don't even have the basic physical infrastructure or trained teachers.

To specialise in biotech research, you need advanced skillsets. But most students coming out of colleges today lack practical knowledge and are mere bookworms. It's like earning a catering technology degree without learning how to cook! To improvise on the practical knowledge and bring in skilled people, every Masters degree programme should start insisting on producing at least two publications to showcase their innovative thoughts. And for that, one needs to have the confidence and willingness to take risks. And if we are able to raise the risk-taking ability and innovation levels, we would be giving industry a booster shot. This has to start right at the college level and needs to be extended to the teaching staff too. It might be a good idea to give biotech college lecturers one month vocational training at Council for Scientific and Industrial Research Labs (CSIR), IIT or Indian Institute of Science (IISc)? Perhaps this practical knowledge will facilitate teaching biotechnology courses in a more refined manner.

Moreover, today's curricula don't seem to be anywhere close to matching the industry's requirements. Limited availability of trained manpower is a big hurdle for the industry that needs certain specific skillsets. Students do make a beeline for project work in leading biotech companies, but their interest is limited to the marks it could fetch them. While one cannot complain of lack of commitment, but for obvious reasons, these students can't be involved in core R&D.; The college managements should step forward and approach the department of biotechnology (DBT) to place these students at CSIR laboratories or give students small project works to hone up their innovative skills. Lest, we may be killing the science of biotechnology.

In the next five years, one can expect a huge shortage of right kind of people. A six to nine months training from DBT or CSIR labs is all that the industry needs rather than absorb an absolute fresher. For the industry to touch \$5 billion mark by 2010, we need more people to drive innovation levels in biotech segment and make the country biotech capital of the globe. We need 14,000 doctorate holders from the current strength of 1,400.

—(The writer is chairman, Bharat Biotech International Ltd)