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Value-added Specialization

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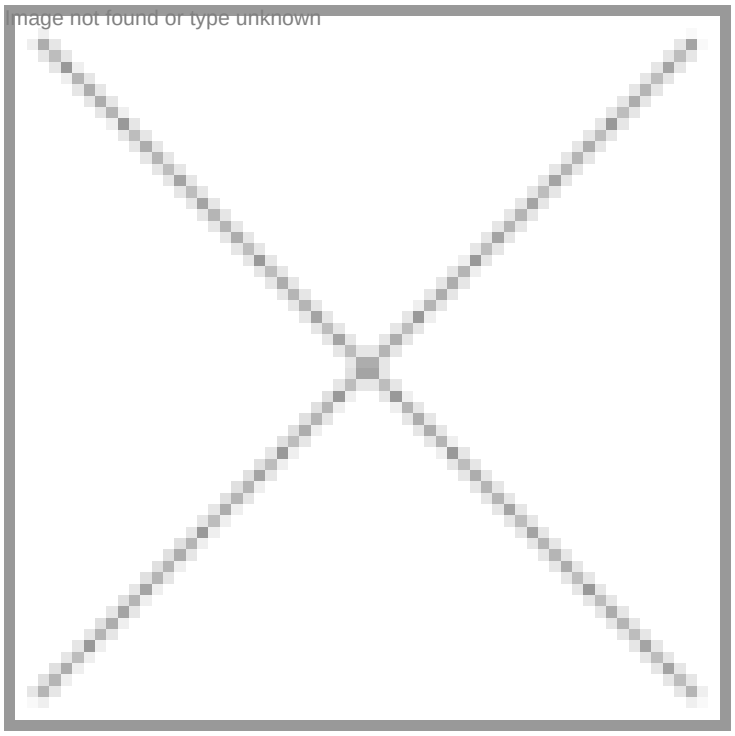
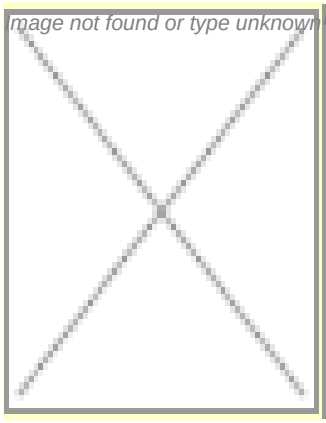
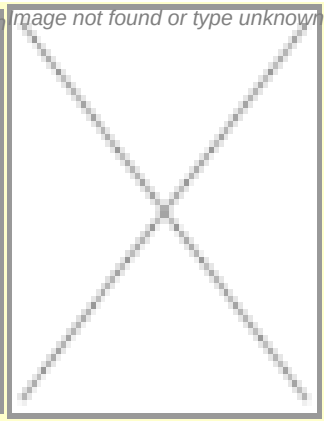


Value-added Specialization

Relevant graduate courses complemented by academic IPR expertise can help students choose a career in the field of patents.





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While R&D is freely acknowledged to be a contributing factor towards economic progress, what is not so widely understood is that it has to be a sustained effort in the long term if it is to achieve the crucial 'engine driver' status required to propel a developing nation forward. Many issues impact the quantum and quality of R&D efforts, but perhaps one of the most significant issues is protection. R&D makes enormous demands in terms of time, effort and money, and unless and until the fruits of R&D are not protected by way of supportive Intellectual Property (IP) Rights laws, incentives for such sustained R&D will be absent.

R&D outsourcing

Investments in research in the biotech sector is growing all the time â€“ the world currently spends about $7 billion on outsourced biotech R&D. This is expected to grow by 30 percent every year for the next 5 years. At present India's biotech industry holds only 1 percent of the total global biotech market. It is expected to hold up to10 percent of the global biotech market over the next 5 years. All this research generates significant intellectual property, and the relevant form of protection in this field is usually patents.

India is rapidly becoming a hub for biotech industries. In the present economic environment where more and more private capital is flowing into R&D, IP protection becomes something of a precondition. To commercialize any research based product, i.e. an invention, a patent on the same is a must. Biotechnology companies invest millions of dollars and sometimes decades to develop a product which is then patented, and such investments become feasible only because patents provide the market exclusivity to commercialize that product and get returns.

With new patent protection policies put in place by the Indian government, the environment here is now more conducive to research. More and more international biotech giants are looking at India for outsourcing their R&D work. Different areas of biotechnology like genomics, proteomics, bioinformatics, drug discovery, protein engineering, stem cell research, plant and animal biotechnology etc. are being explored. With a large pool of patient population, the big drug manufacturers are also looking at India for their clinical trials studies.

With this in mind, much capital is being invested into R&D in the biotechnology sector in India. However, to patent a product one also needs IP personnel. It is, therefore, essential to address both the issues simultaneously â€“ provide a conducive IP/patents regime, and train professionals to protect the fruits of the research undertaken here. The former is the concern of the government/industry, and we need not look at it here.

IP studies

Students at the crossroads of their career today have a lot to choose from. Instead of taking a traditional path of professional courses, one can look at pure sciences. Biology is expected to be the next big thing in education during the next decade. A student with biotechnology qualifications or with any biology background can opt for IP studies as a value-added specialization in a niche area. Both are emerging fields with great potential, and as yet there is a mismatch in the demand-supply situation as regards availability of professionals with IP know-how. Nobody understands the invention better than the inventor himself. Hence in order to successfully patent a biotechnology invention, an IP professional with a biotech background will be invaluable. Unless the patent personnel understand the invention, he/she cannot draft the patent, or even liaise effectively with the support team. Hence, an IP education to complement a biotechnology background offers an excellent career path. This would be especially useful for those students who do not wish to pursue pure research after having completed their biotech/biology courses.

Career opportunities

Contrary to common perception, the subject of patents is not restricted to law. In fact, a lawyer without a technical background cannot be a patent agent, while a person holding a technical/scientific qualification only and no legal degree can qualify to be a government registered patent agent. This is based on the concept whereby understanding of an invention is a must in order to draft or defend a patent.

Apart from the industry related research, there is an influx of back office international patent work such as drafting coming into India. This again creates career opportunities. Further, patents for research undertaken abroad need protection in India as well. This also provides opportunities for IP personnel, to represent international clients and file patents in India.

There are, therefore, different opportunities biotechnology students can consider. Very broadly, these include:

- Patent search, given that patent applications are techno-legal documents holding a wealth of scientific information

- Patent specification drafting, for which a scientific/technological background is a must
- Prosecuting/filing patent applications
- Patent litigation
- Patent management â€“ this would involve working in a corporate IP cell of biotech or pharmaceutical company.
- Consultancy, after a few years of experience and expertise have been obtained. This has a lot of potential, both with Indian clients and for international firms seeking to enter the Indian market.

While the field of IP in general, and patents in particular, offers exciting new opportunities to students, it must be realized that this is a complex field. To practice in the area, some degree of formal education is essential if one is to have the proper credentials and work with any degree of efficiency.

By Margi Choksi and Anushree Lokur