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Will PUPFIP Bill inspire innovation?

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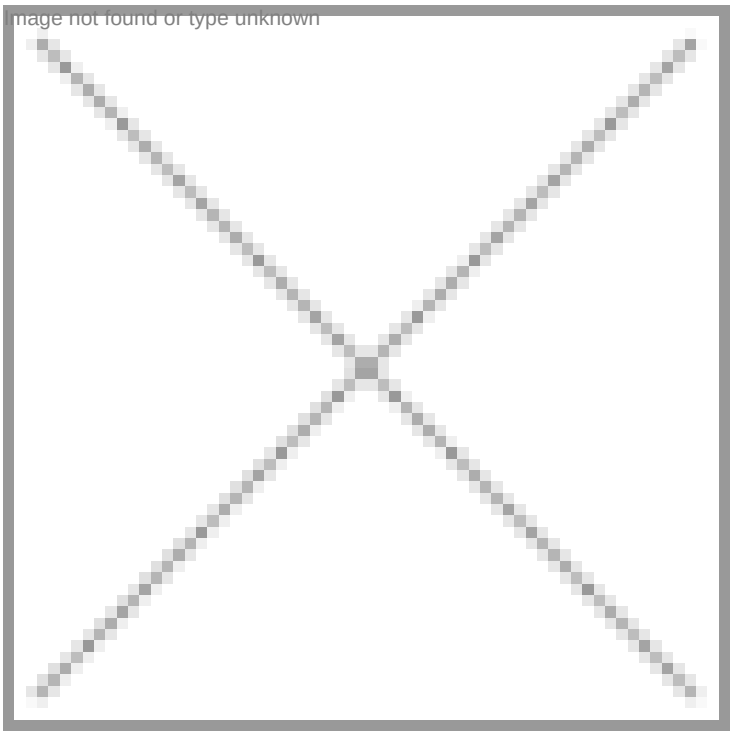

Shutterstock17558989 Image not found or type unknown The Protection and Utilization of Public Funded Intellectual Property (PUPFIP) Bill would not only create awareness about intellectual property but would also encourage a culture of innovation in India. One of the objectives of the Bill remains incentivizing research, thus increasing the responsibility of the researchers and universities to innovate.

Traditionally, academic research has concentrated on elucidating the fundamental aspects of the respective scientific disciplines, whereas industrial research has been more product-driven. The authors of the Bill believe that academia currently lacks the necessary impetus required to generate intellectual property that can be used by the industry. The PUPFIP Bill aims to bridge the gap between industry and academia by providing researchers with incentives such as royalties to conduct innovative research that can add value to the society. However, the question remains, whether the adoption of a goal oriented research strategy will suit the academia and not destroy its ideologies.

It is imperative, especially in the public health sector, to translate disease related research carried out in the academic institutions into suitable diagnostics and therapies, for the benefit of the people. The PUFPIP Bill is being looked at as the trigger that encourages scientists to work towards translating their research into products or closely collaborate with the industry to do the same.

The US experience

In the US, the Bayh-Dole Act is responsible for spurring academia industry relations, thus aiding the biotechnology industryto grow in leaps and bounds. Some of the best cited examples of products that have resulted from technology transfer include an artificial lung surfactant for babies born with respiratory distress system (University of California), a new treatment for Crohn's disease and other inflammatory bowel diseases (Washington University in St. Louis) and a haemophilus B conjugate

vaccine (University of Rochester).

However, opinion remains divided on whether these innovations were inspired because of the enactment of the law or would have seen the light of the day even without its help.

Hopes of quality work

Dr Virendra Chauhan, director, International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, says, â€œInnovation does not always mean creating something new from scratch. It could also be described as a good quality imitation, which is better in terms of quality and cost.â€?

By designing a transparent process to facilitate effective transfer of technology, the PUPFIP Bill aims to provide a platform for innovators from research institutes, to market and license their inventions to the industry. This would serve as an assurance to the innovators, that their inventions would yield them some profitable returns, thus further providing the impetus to innovation. It is hypothesized that if basic research results can be purchased by would-be developers, commercial innovation will be accelerated.

The rDNA technology

The most important innovation in the biotechnology arena, post the implementation of the Bayh-Dole act in the US, is that of recombinant DNA technology that was co-developed by Stanford University and the University of California. In this case the innovation was so ground breaking that it not only allowed the universities to earn sizable licensing incomes (Stanford and the University of California system accrued $255 million in licensing revenues), but also gave rise to whole bunch of start-up biotechnology companies, which manufactured products based on this technology. Much of the licensing income was subsequently invested in research and infrastructure. The Cohen-Boyer patent thus became the gold standard for universities to transfer innovative technology to the industry.

This Bill is not directed at only large and well-established universities, but also at small and medium-sized industries and non-governmental organizations. Dr Ravi Dhar, senior consultant, Biotechnology Industry Research Assistance Program (BIRAP), Ministry of Science and Technology, explains the benefits of this Bill for start-ups. â€œStart-up companies are the intermediaries that convert a lab know-how into a feasible technology format that enable the large industrial companies to evaluate realistic risks and take an investment decision on adopting a particular technology. The Bayh-Dole Act provides incentives to the researchers, thus encouraging the formation of start-ups, which can fill in the gaps in the lab-to-the-plant journey, thus fueling innovation,â€? he says.

The threat of stifling research

The core purpose of a patent can be viewed as a method to add value to society through innovation and at the same time reward the inventor for his innovation. The current intellectual property system in the US has been a major source of inspiration for the one in India. However, the US system is viewed by many to be actually obstructive to innovation as it prevents others from building or improving on the idea behind the patent.

Much like a double-edged sword, patent laws can be and are being bent to serve the purpose of earning revenue vialitigation by the non-practicing entities (NPEs) rather than actually rewarding the innovation of an individual. NPEs or 'patent trolls', as they are popularly known, do not design or develop any intellectual property, nor do they earn any royalties from licensing them out. The lion's share of their revenue is via litigations and royalties from other companies, which use a part or whole of the patent owned by the NPE. This misuse of the patenting system is viewed by many to be a primary cause for stifling innovation in the US.

A principal point to be considered is that this phenomena is being observed in developed countries after years of intense awareness of intellectual property issues and patenting, unlike our own country, which is still in the nascent stages of both. Dr Vijay Chandru, president, Association of Biotech Led Enterprises (ABLE) and CEO and chairman, Strand Life Sciences, echoes this thought. He says, â€œPatent trolls are receiving a lot of backlash in the US because the first to file is given the rights as compared to the first to successfully use the technology, an ideology with which most people don't agree with. However, in India, the awareness regarding these issues is rather minimal and hence there isn't any immediate threat.â€?

The Parliamentary Standing Committee found that the Indian Bill is likely to take away creativity from universities and research institutions, and instead promote crass competitiveness. This is also echoed in other writings on the Indian Bill that say it erroneously assumes that protection of intellectual property is the best and only way to promote creativity and innovation.

Professor Shiv Shankar, faculty member, material science department, nano-sciences engineering, chairman, IPR cell, IISc says, â€œThe Bill by itself will not be able to do much. The research institutes will have to conduct programs to increase awareness, which will then result in institutes adopting the measures stated in the Bill.â€?

Dr Dhar seconds this opinion. â€œOne thing is sure that the implication of the Bill will require a bigger IP office and allied

services in India, a need for robust data bases for managing timely registration and disposal of technology disclosure, and hence specially trained man-power to make it possible,â€? he says.

One of the advantages of India being a late entrant in the enforcement of this piece of legislation is that we can observe the long-term effects that this law has had on the the practice of innovation in other countries. Patenting and licensing trends are not useful indicators of technology transfer success. The government is the most important entity in driving innovative ideas. Dr B N Ganguli, former assistant to the director, Hoechst Center for Basic Research, summarises it when he says, â€œThere is no yes and no answer to whether this Bill will foster innovative research. The government is the most important entity that would aid in driving innovative ideasâ€“possible in many ways.â€? Keeping these lessons in mind there is a need to mold the Bill according to India's requirements in order to fully benefit the people of India.

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