

# Regulations and guidelines

## INTELLECTUAL PROPERTY

### Judicious approach - The Indian answer to TRIPS

#### THE ADVENT OF "PRODUCT PATENT REGIME" IN INDIA

The product patent regime ushered in by the obligations to the agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) has spurred important developments in the policies governing Intellectual Property Rights (IPR) and Drugs Regulation in India. The key objectives proposed in the draft of the National Pharmaceuticals Policy, 2006 released by the Department of Chemicals and Petrochemicals, Government of India reflect a close alignment with the product patent regime operating in the Indian pharmaceuticals sector from January 1, 2005. Not surprisingly, a mixed bag of reactions characteristic of any new policy instrument in India, accompanied the developments following India's compliance to TRIPS.

The critical questions included i) Will the product patent regime jeopardize the welfare of the generic pharmaceutical industry in India, ousting them out of business? and ii) Will the common man in India be deprived of essential life saving drugs in the product patent regime? However, the Government of India seemed to be guided by a deep resolve to ensure social well being in the light of the TRIPS obligations. After all, India at some point of time needed to ensure her transition from being the world's most sought after, cost-effective manufacturing base for generic drugs to that of a "global leader" in drug discovery. The product patent regime may well be considered that opportune moment for the switch from a mediocre "mimic" to that of an "original thinker". While the government seems firm to put India on the path to economic progress through research and development, it also has to evolve a conscientious rationale to guarantee quality "health care" to every citizen.

These opposing directives have formed the crux of the proposed National Pharmaceuticals Policy, 2006 which commits to

- The accessibility of life saving medicines to the poor and needy;
- Higher investments for drug production;
- Incentives for drug research and development;
- Enablement of domestic pharmaceutical companies to become internationally competitive by implementing cGMP, GLP, GCP and other established international guidelines;
- A higher growth in the exports of APIs and formulations against international trade barriers;
- Developing India as a preferred destination for pharmaceutical research and manufacture; and
- The implementation of a "Health Policy" for India.

The aforesaid objectives have been effectively bolstered by proposed initiatives such as

- Strengthening drug regulations and IP Administration including data protection;

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- Allowing multi-centric clinical trials in India;
- Private-public partnerships for determining the prices of drugs for cancer, HIV/AIDS and other life threatening diseases;
- Mandatory price negotiations on patented drugs before the issue of marketing approvals;
- Fixing trade margins for branded and generic drugs;
- Reduction of excise duty on pharmaceutical products from 16% to 8%; applicability of maximum retail price inclusive of taxes for packaged medicines; enactment of a new Drug and Therapeutics (Regulation) Act;
- Strengthening the powers of the National Pharmaceutical Pricing Authority;
- System for the bulk procurement of generic drugs by the government;
- Promotion of generic drugs;
- Control of pharmaceutical brands in the light of "homonyms" or "misbranding"; publicizing GMP certification of drugs;
- Enhancing purchase preferences to pharmaceutical public sector units;
- Improved consumer awareness programs;
- Schemes for providing drug accessibility to the poor;
- Focus in research and development;
- Development and marketing of orphan drugs;
- Implementing the abuse of drugs classified as narcotics through the regulation of the Narcotics and Psychotropic Substances Act 1985;
- Establishment of a settlement commission to regulate drug overcharging disputes;
- Enhancing the scope of Drug Price Monitoring and Awareness Fund;
- Greater thrust on pharmaceutical exports;
- Drug distribution through effective retailing; and
- The establishment of a

pharmaceutical advisory forum.

The proposed policy seems to delineate every effort of the Indian government to i) tap the intellectual horsepower of the nation by promoting research and development in the product-patent regime; and ii) sustain growth and development in the pharmaceutical sector while controlling prices.

## TRIPS MARKS IP "RENAISSANCE" IN INDIA

India's commitment to the World Trade Organization to harmonize the trade related aspects of IPR across the globe has put The Patents Act, 1970 through a series of amendments. The reforms significant to the drugs sector include i) redefining the scope of the terms "invention", "inventive step" and "pharmaceutical substance"; ii) A twenty year patent term from the date of filing; iii) clarity on non-patentable subject matter; and iv) effective redress systems in the forms of "compulsory licensing" and "parallel importation".

Changes in the legal framework have been well supported by those in administration including a) an augmentation in strength of technical expertise; b) training for patent examiners through bilateral cooperation with countries such as the United States of America, Europe, Switzerland, Japan and France ; c) complete computerization of IP Administrative system including e-filing facilities to ensure transparency, efficacy and speed of operation; and d) creation of IP cells to help R&D with the patent filing, prosecution and litigation.

India however continues to suffer from the lack of a functional legislation to protect "proprietary information" submitted during the process of drug approval. The agreement on TRIPS [Article 39 (3)] mandates WTO members to ensure protection of clinical data submitted by a patentee or manufacturers of drugs from "unfair commercial use" by competitors.

The Government of India is confronted with the arduous task of addressing

- The need for a legislation that would clearly elucidate as to what in meaning would be encompassed by Section 7, Article 39 (3) of the Agreement on TRIPS and how relevant it would be for Indian drug approval scenario;
- The opinion split on whether the requirement would be a simple "data protection" means or extensive "data exclusivity" legislations that would require the Drug controller to exercise both "non-disclosure" and "non-reliance" for a specified period of time, thus creating market exclusivity of novel drug molecules;
- Term of "data exclusivity" if required, for "trade secrets" as included in Part II, Section 7, Article 39 of the Agreement on TRIPS; and
- The need for a legislation that would perfectly square the disparities between the concerns of loss of know-how by R&D units in the absence of "data-exclusivity" legislations and survival of generics in India that have served as the apothecary of the poor for the developing and least developed nations.

An emphasis on data protection has been laid in the draft of the National Pharmaceuticals Policy, 2006.

## INDIA "TRIPS" NOVARTIS – IMPORTANT LESSONS

The Patents Act, 1970 ("Act" henceforth) has been amended to redefine the spirit and scope of patentable subject matter in accordance to the guidelines set forth in



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Section 5, Article 27 of the agreement on TRIPS. Accordingly, Section 2(1) (j) of the "Act" defines "invention" as a new "product" or "process" involving an inventive step and capable of industrial application. Thus patents shall be available for any inventions, whether products or processes, in all fields of technology, provided they are novel (new), involve an inventive step and are capable of industrial application. The term "inventive step" means a feature of an invention that involves a technical advance as compared to existing knowledge or economic significance or both and that makes an invention non-obvious to one skilled in the art (Section 2 (1) (ja) of the "Act").

Clarity in defining a "pharmaceutical substance" as any new entity involving one or more inventive steps has assumed significance in the "product patent" regime (Section 3 (ta) of the "Act"). The example of an amendment in the "Act" to prevent "frivolous patenting" in the form of incremental innovations in the drugs sector with little or no value, is that of Section 3 (d). The section dictates that new forms of known substances including salts, esters, ethers, polymorphs, metabolites, pure forms, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substances are not patentable unless they differ significantly from the known substances in terms of efficacy.

This "efficacy" check stalled the grant of an Indian patent to Novartis for its beta-crystalline form of imanitib mesylate, an anti-cancer drug. Novartis chose to argue the case on what it believed to be "inadequacies in the Indian Patent Law that will have negative consequences for patients and public health research in India" according to PAUL HERRLING, Ph.D., Head of Corporate Research, Novartis, and

Chair of the Board of the Novartis Institute of Tropical Diseases. Novartis sought an explanation on how innovation was valued and protected in India. However, the required explanation was inherent in the clarification sought from Novartis as to how the beta-crystals of imanitib mesylate were more efficacious in comparison to the "known efficacy" of the imanitib mesylate salt patented earlier. Novartis showed increased bioavailability of the beta-crystalline form of the drug, but failed to demonstrate how the percentage increase contributed to the performance of the drug in comparison to the known efficacy.

Desperate, Novartis filed a petition at the High Court, Chennai challenging the constitutional validity of Section 3 (d) in terms of i) its non-compliance to the Agreement on TRIPS and ii) its arbitrary, illogical and vague nature that offends of Article 14 of the Constitution of India. The court held that Article 64 of the Agreement on TRIPS provided a comprehensive "Common dispute settlement mechanism" and saw no reason why Novartis could not be directed to this mechanism to address its concerns on Section 3 (d) of the "Act".

The court refused a decision on whether the amended Section 3 (d) was non-compliant with TRIPS and also a "declaratory relief" to Novartis on the issue. Further, in the light of defining "efficacy" and "therapeutic" to understand the phrase "resulting in the enhancement of known efficacy" the court clearly expressed that Novartis, claiming itself to be a pharmaceutical giant in the world cannot plead ignorance on what is meant by "enhancement of known efficacy" and an inability to show that the derivatives differ significantly in properties with respect to efficacy. The court also highlighted that the amended Section 3 (d) did not violate Article 14 of the Constitution of India through its objectives of i) preventing the issue of "ever greening"; ii) ensuring access of life-saving drugs to the common man; and (iii) discharging a constitutional obligation to provide quality "health care" to every citizen. The case whose basis was the inadequacy in the "Act" ended as a proof of an inherent inadequacy in the "innovative capacity" of Novartis in developing a more efficacious form of its anti-cancer drug that could qualify for an Indian patent. Article 8 of the Agreement on TRIPS has indeed provided India a vantage point to firmly reserve her right to critically distinguish "original inventions" from "incremental impostors". The Indian Patent system thus seems to value and protect only those innovations which, through a disciplined display of "originality" and "enterprise" are committed to protect public health, nutrition and public interest in sectors vital to socio-economic and technological development.

Seeking to introduce powerful redress mechanisms to check the rise in prices of life saving drugs in the product patent regime, the "Act" has two important provisions. (i) Section 92A that states that compulsory license shall be available for the manufacture and export of patented pharmaceutical products to any country having insufficient or no manufacturing capacity in the pharmaceutical sector for the concerned product to address public health problems, provided compulsory license has been granted by such country or such country has, by notification or otherwise, allowed importation of patented pharmaceutical products from India. The section further clarifies that "pharmaceutical products" means any patented product, or product manufactured through a patented process, of the pharmaceutical sector needed to address public health problems and shall be inclusive of ingredients necessary for their manufacture and diagnostic kits required for their use. (ii) Section 107 A (b) allowing parallel imports of patented drugs by any person from a patent right holder or a person legally authorized to distribute the product.

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## PROTECTION OF INDIGENOUS KNOWLEDGE IN THE PRODUCT PATENT REGIME – A RAY OF HOPE

The "Act" forbids the patentability of discoveries of living or non-living things occurring in nature (Section 3 (c)). Further an invention which in effect is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components is non-patentable (Section 3(p) of the "Act"). Does this mean that the amended Patents Act, 1970 stifles innovations pertaining to natural products? A broad objective based on uncovering nature's goodness and applying cutting edge technology to standardize natural products or to create a whole new range of active molecules with new utility and industrial applicability will serve to wash away misconceptions pertaining to the IPR protection for key areas such as "phyto-pharmaceuticals". Thus innovations resulting from considerable human intervention in thrust areas like phytochemistry, organic chemistry, synthetic chemistry, biochemistry, molecular biology, microbiology, tissue culture and biotechnology that involve an inventive step and are capable of industrial application may well be considered patentable according to the amended "Act".

Indian patents could be possible for

- Active molecules of natural origin, wherein the molecules do not exist as such in nature and their creation has involved considerable human intervention resulting in novel physical, chemical or biological properties that may contribute to a new utility and considerable industrial applicability;
- Novel process of synthesizing active molecules of natural origin, wherein the molecules do not exist as such in

nature and their creation has involved considerable human intervention resulting in novel physical, chemical or biological properties that may contribute to a new utility and considerable industrial applicability;

- Novel process for producing standardized natural extracts with novel properties, industrial applicability and new utility;
- Standardized natural extracts wherein the standardization has involved a novel process not known before and the extract exhibits novel physical, chemical or biological properties that may contribute to new utility and industrial applicability; and
- New forms of known active molecules of natural origin including salts, esters, ethers, polymorphs, metabolites, pure forms, particle size, isomers, complexes, combinations and other derivatives which exhibit an enhanced efficacy (performance) when compared to the active molecules themselves. One alternate way of protecting India's traditional knowledge base would be to apply new laboratory standards (novel technology) to the indigenously known products of natural origin to unravel facets unknown before and which can be afforded patent protection.

## CONCLUSION

The effects of India's compliance to the Agreement on TRIPS seem multifaceted and are difficult to classify. With the onus of unifying health security and scientific growth, India would need to evolve novel strategies and solutions that have to differ with each case. Active collaborations between public / private research units and the government on IPR related issues seem to be the need of the hour to ensure the growth of pharmaceutical corporations along with socio-economic growth of the nation. Productive consensus among the policy makers and the scientific community is required to evolve an internationally competent version of the "Act" as required by the WTO. The "Act" may also be modified to include specific provisions relevant for each technology area. "Homeostasis" eluding the product patent regime today is bound to be achieved in due course in the light of India's continued efforts to comply with TRIPS in a meaningful and purposeful manner.

## Erratum

to

**"A double-blind study to evaluate the safety and efficacy of policosanol vs. atorvastatin in the treatment of hyperlipidaemia"**

**by M. Majeed, L. Prakash, J. Jayaram**

**NutraCos 2007, 6, Jul Aug, 16-19**

The text on page 18 column 3 paragraph 4, should read as:

"Significant decrease in the ESR (erythrocyte sedimentation rate), an early marker of inflammation, in Policosanol treated group (29.32%, p<0.034) in comparison to a nonsignificant increase in the Atorvastatin treated group (7.35%), was observed (Figure 2)."