Biotech Patents and Indigenous Knowledge

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A principle concern of particularly developing countries world-wide, as expressed in a variety of books like "Conserving Indigenous Knowledge", is that the indigenous knowledge of e. g. third world countries would be exploited by entrepreneurs from industrialized countries in such a manner that a) the societies from which the indigenous knowledge stems do not participate in the fruits, particularly monetary income, from the exploitation and b) even would have to pay, after the respective indigenous knowledge is patented by e. g. a company from an industrialized country, for the future use of the indigenous knowledge which actually originally was owned and therefore is the sole property of the indigenous society.

If one looks into the principles of the world-wide patent system and takes the very basic rules thereof fully into consideration, one may come to the conclusion, however, that the above mentioned concerns could rather easily be overcome if, as it will be shown at the end of this paper, novelty principles as they are used in the European Patent Convention (EPC) and its practice would be applied world-wide, particularly with regard to public prior use.

1. The Novelty and Inventiveness Principle of Patent Protection

The first principle to be reminded of, when discussing questions as dealt with in this paper, is that, generally spoken, nothing can be patented which was already known to the public, i. e. known in such a manner that experts could work the respective "invention" based on the publicly available knowledge.

The second principle is that patents, generally, are granted for one sole purpose, namely for the disclosure of the respective invention to the public in such a manner that experts can make use of the respective inventions. In order to encourage inventors to disclose their invention, what otherwise they possibly would not do, patents give them, restricted to a certain time period, the duration of the patent, a monopoly to use the respective invention.

If one applies the two principles to the question of protection of indigenous knowledge appropriately, it appears that the problem of an expropriation of indigenous societies actually does not exist, as can be seen as follows:

As far as the indigenous knowledge was already publicly known, e. g. by wide, public use in a certain indigenous society, a patent of e. g. a company from an industrialized country cannot be granted and thereby monopolize the respective knowledge. As an example: If it was already known in an indigenous society to use a certain plant as a pharmaceutical, in an unrefined form, such use and such plant for the respective purpose cannot be patented. A company from the industrialized country, however, can, of course, develop a process to refine the substance further, or can find in a certain plant a specific chemical, which even may be protectable in its pure form and can be synthesized, and that is of course an invention which goes beyond the indigenous knowledge of the country where the plant stems from.

If such a patent is granted for the aforementioned company, nothing will change for the people in the indigenous society, since the patent does not extend to what they, based on their indigenous knowledge, always have done. Furthermore, even other societies in the world may use this indigenous knowledge freely. If the indigenous society, however, wishes to use the **patented** invention, i. e. the additional know-how of the company from the industrialized country combined with the indigenous knowledge, for such use the indigenous society would e. g. have to pay by buying respective patented pharmaceuticals etc.. I do not see any reason why in this case such use by the indigenous society should be cost-free, since whatever is different in the patented invention from the indigenous knowledge comes from the company from the industrialized country.

On the other hand, should the indigenous knowledge not have been publicly known in the sense of the public prior use in accordance with most patent systems in the industrialized world, obviously it was not available to the public world-wide and could not be used by all human beings. In this case, it has to be considered as something like company-secret know-how of an industrial entity. If, in this case, somebody collects the respective knowledge and discloses it for the benefit of the humanity to the world-wide public, because of the contribution to the benefit of whole humanity that company should be rewarded by a monopoly for a respective period of time, since without such disclosure (and patenting) the indigenous knowledge would have remained useless for billions of people world-wide.

2. Public Prior Use as Novelty Bar

The remedies the above mentioned principles would bring with them with regard to indigenous knowledge and its "preservation" for developing countries could only come into existence, of course, on a **world-wide** basis if not only printed publications are considered as novelty destroying state of the art, but also world-wide public prior use. This is, as the audience will know, the case in the European Union, both under national patent laws and under the European Patent Convention.

Otherwise, if only a **national** novelty destroying character of public prior use is considered as applicable, like particularly in U.S.A., it is still possible that a company from United States could patent indigenous knowledge stemming e. g. from a country like Brazil. It can only be hoped that also in countries like U.S.A., possibly in connection with the further implementation of the uniform rules of TRIPS on the world-wide intellectual property system, also in United States public prior use of an international nature would be considered as novelty destroying. Also, the novelty-destroying character of public prior use would have to depend on the "teaching principle", as defined e. g. in EPC practice, and not depend on the "commercialization principle" as in U.S.A..

3. Summary

As a conclusion, the very basic principles of the world-wide patent system itself, if strictly applied in a manner like used under EPC, would solve a lot, if not all, of the ethical questions connected with patent protection for biotech inventions.

As such principles, to summarize, has to be considered, first of all, the fact that patents should only be granted for the disclosure of novel inventions, i. e. for the bringing into existence technical teachings in whatever fields of technology – but it has to be technology! – which were not yet known before.

As a second principle, everything should be considered as having been known which has existed in nature, whether in a written form or in a still to be discovered "material" form, like by prior use, in the sense that an ordinary expert, if he would have looked into such "use" circumstances, would have found the inventions automatically.

From the personal viewpoint of the author, this would make it impossible, for instance, to unduly patent "indigenous knowledge", if not restricted to new methods of getting cleaner substances, etc., out of, say, "indigenous" medicines, and, on the other hand, also gene sequences a unless modified or being made part of rectors helping to carry them into the organism of plants, animals, or human beings could only be patented if directed to a specific use, and not as such, if the respective sequences did exist already in nature before the time of their isolation.

The latter would not mean, of course, that the isolation process as such would not be patentable, rather both such manufacturing steps as well as a broad variety of uses (indications) would lead to valuable patents to be granted to the creators of such technology-based additional knowledge.