

## Meeting with Eric Enderlin

### ***French and European Patent Attorney at Novagraaf***

#### 1. Does CRISPR-Cas9 is a revolution for you? (In your work)

No. Intellectual property law is the law of innovation. It is our role and our work to be able to regulate innovation. In this area, there are no new legal issues.

The distinction between ethical issues and intellectual property must be made. Intellectual property does not take into account ethics, which independently define according to each legal system. CRISPR does not raise any particular issues concerning the application of industrial property.

The applied research consists in solving a technical problem. Intellectual property protects the technical means of the discovery and not the discovery itself. The European Patent convention, at the article 53\* contains exceptions to patentability.

#### 2. Research and industrial protection can work together?

Researchers who work on fundamental research and those who work on applied research have a different vision of their researches.

Yet, patentability allows for a return on investment which can then fund further researches. For instance, scientist from Bordeaux University Teaching Hospital found how to treat childish hemangiomas. This illness is characterized purple excrescences on new born babies.

Researchers injected propranolol on those hemangiomas and thanks to this treatment the excrescences turned brown and then disappeared.

What has been protected here, are the technical means. There is an idea of implementation behind the innovation to protect.

European patents shall not be granted in respect of:

(a)

Inventions the commercial exploitation of which would be contrary to "ordre public" or morality; such exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the Contracting States;

(b) [ 42 ]

plant or animal varieties or essentially biological processes for the production of plants or animals; this provision shall not apply to microbiological processes or the products thereof;

(c)

- methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body; this provision shall not apply to products, in particular substances or compositions, for use in any of these methods.

### 3. France is one of the country which filed less patents. Why?

There is indeed less patents filed in France than in other countries. In France, 18 000 patents are published every year. The explanation comes from a prejudice: fundamental research and patents are not compatible.

From the point of view of scientist: Researchers sees in patent requirements a form of pressure, they feel like we will dig into their papers and researches. They do not want to be part of an economic circle and even less feel restrained by legal requirements. Research must be free.

Scientists in fundamental research, specially look for publication for the acknowledgment of their peers. Yet, when the research is published, the invention is no more patentable: the novelty requirement cannot be meet. The possibility of patent dies with the publication.

From the patent point of view: Patent does not block science. The French Intellectual Property Code states that the patent can be a source of scientific inspiration. 80% of the scientific information is found in those patents. Yet, to obtain a Patent you must render public your innovation.

There is an exemption for scientists in order to allow them to work on the object of the patent. The one who is making research on a patented innovation is free, he is not consider as a counterfeiter. It is the same thing for reproduction of drugs.

However, scientists are against the economic system it creates. This conception of free research far from the economic system and from the approach of profit is typically French. In the USA, at the University, as soon as a scientist finds something, the invention must go through a patent office before any publication. In France, the University is not able to commercially exploit a patent but the University can use licenses and then profit from the funds. But, this situation is not a tradition in France.

We keep the idea of a generous France which fund the research without profit in order to enlighten and give to the world. For instance, a laboratory which worked for 8 years on a certain issue, made a tour of his laboratory to an American boss. Back in the US, this American boss took over the researches of this lab and turned it into a commercial profit. With one visit, 8 years of researches were given to the US.

#### **Patents have an interest in funding the research.**

It takes 18 months to publish a patent and this patent gives exclusive rights for 20 years. The patent protection promotes the research and the one who invested. To take again the example of the researchers who work on childish hemangiomas (Dr. Christine Léauté-Labreze from Bordeaux University Teaching Hospital). Patent gave them the opportunity to benefit from it and cure other children who have this disease thanks to the return on investment.

Another example on progeria, researchers contacted us about invention on this disease. They discovered a chemical substance which had an effect on this illness. Nevertheless, there is not enough cases in France to obtain a financial support. We advised thus them to research an application. They came back with the idea of a triple therapy connected with their chemical substance which could cure the disease. This patent permitted a return on investment.

Finally, “the evil patent” is in fact only a strong prejudice, it is actually really useful to scientist and to the Science allowing in the same time a return on investment but also a recognition for the scientist.