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With an eye on the market

A symposium debates intellectual property in order to stimulate patents

The protection of intellectual production, by way of the registration of patents, may guarantee that one part of the knowledge generated in the university laboratories and research centers results in financial benefit to the researcher, the institution and for the country. In Brazil only 10% of Brazilian intellectual production is protected through patents. However, the Brazilian academic, little by little, is discovering the importance of registering their inventions, with an eye on the market. The most recent contribution to this debate was the*Scientia 2000 symposium: Intellectual Property for the Academy* , which took place on the 13th and 14th of November on the campus of the Oswaldo Cruz, Foundation in Rio de Janeiro.

The meeting brought together more than 120 specialists and representatives of research centers and foreign universities, who spoke about their experiences in the generation of intellectual property in First World countries, to a platform composed of administrators of research and university organs in Brazil, lawyers, scientists and students.

For Simone Scholze, of the Ministry of Science and Technology and one of the organizers of the symposium, what is required is that universities and research centers in the country define strategies for the protection of intellectual property. One of the paths, which he suggests, is the mobilization of managers of science and technology who have as their focus of attention possible economic results coming from the research. "The scientist is preoccupied with developing his research and publishing his article, which in itself is natural. Hence it falls to the managers to create the structure necessary for the generation of patents."

Mr. Scholze remembered that, through there exist methods in Brazil for regularizing the question of intellectual ownership, the universities and the research centers are not yet adapted, from the administrative point of view, to operating the resources generated through patents. "Many institutions and universities don't have regulations for the distribution of royalties, nor specific written guidelines for patents." he stated.

In the evaluation of Cláudia Chamas, of Fiocruz, one of the organizing entities of the event, it is necessary to have a greater dissemination of information in relation to the protection of intellectual property within the country, principally at this moment in time, in which the Brazilian scientists are publishing more and more of their results in international magazines. "There is ignorance amongst the researchers themselves in relation to the proper procedures for the generation of patents." said Cláudia Chamas.

Incentive

The seminar showed different realities in thecurrent Brazilian situation in the area of protection of intellectual property. Frederic Erbisch, of the University of Michigan, explained that two decades ago, changes in the North American legislation, resulted in an increase in the number of research patents required by the Universities of the country. The so called*Bayh-Dole Act* , a law of 1980, which regulated the registering of research patents financed through the North American government within the universities, was the principal instrument for incentivating patents. Mr. Erbisch stated that the inventions and patents generated by the universities made it possible that in 1998, 2,500 new companies and businesses were created.

"More or less 70% of these businesses are still operating with success." he affirmed. During this period, continued Mr. Erbisch, more than 289,000 jobs were created linked to the commerce of new technology coming from the academic world.Over the past 20 years, more than 20,000 patents from American universities have been registered. "Just at the University of Michigan in 1998, we received close to US$ 24 million in royalties for our patents." The*Bayh-Dole Act* also provoked other changes. Between 1980 and 1990 there were created more than 200 offices for the transfer of technology and the registration of patents within the American university system.

The North American success has also served as a model for other developed countries. For example, Japan recently created a law similar to that of*Bayh-Dole* to stimulate the registering of patents in the university circuit. "The incentive to researches and patenting carried out at the university is growing in the country, which until a short time ago was very small." said Christopher Heath, a specialist in universities and research institutions of Japan.

In school

Countries such as Germany have programs which stimulate learning about intellectual property while still at school. Stefanie Winkler, of the Ministry of Education and Research of Germany, informed that the question is included for pupils in the secondary school curriculum of the country. "It is the first contact that the pupil gets with this theme which certainly will be met with again at university." she explained.

Bernard Hertel, a physicist who directs Garching Innovation, linked to the Max-Planck Institute, explained the workings of the office of patents and transfer of technology of the German institution, presenting its main attributions. According to him, the professionals within the office carry out the mediation of the complete process: from the relationship with the scientists-inventors at the center of the research, to the lawyers, and even maintain contact with industry for the economic approval of the innovation. It wasn't by chance that the presentation given by Hertel had the title From the Ivory Tower to the Stock Exchange." The office looks after the patenting of inventions for 81 research institutes which are integrated with the Max-Planck Institute.

Jens Tampe, of the Fraunhofer Center of Patents for research in Germany, emphasized that within the academic world of the country the question of intellectual ownership has been consolidated. He further explained that for some time now, it is required that the researcher has on his curriculum at least one patent. For Mr. Tampe, one of the factors which served as an

inspiration for this new situation was the appearance of North American companies in the area of biotechnology founded by scientists from the decade of the 80s onwards. "The success of these companies called the attention of the German scientists who rapidly paid attention to the viability of the economic utilization of their research." he said.

The universities had to adapt to the new reality. "From the beginning of the decade of the 90s each university undertook the mounting of its office for the transference of technology." remembered Mr. Tampe, creating an atmosphere very different from that prevalent during the post war years. "Before, for the German scientist, science and economics weren't to be mixed. However, the very success of the chemical and pharmaceutical industries of the country began to change this mentality." he completed.

In spite of this, Mr. Tampe emphasized that the universities still fall short by not maintaining fixed budgets for their patenting offices and by not offering greater opportunities for the training of the professionals in this sector. "The greater the scientific foundation, the greater the efficiency the offices of registration and transfer of technology." he commented.

Law on the agenda

The judicial aspects of patents was on the agenda of the debates.Bernhard Fischer, a specialist lawyer from the Max Planck Institute of Germany, affirmed that in actual fact there is an immense discussion in Europe over the so called right of experimental use of patents - when the knowledge of the invention or of the innovation are revealed and used for research purposes. Dr. Fischer stated that there exist judicial decisions contesting the right of experimental use. "Various companies have come out victorious and guaranteeing the monopoly of the knowledge in detriment to the petition of the scientists who solicited the experimental use of the patent." he related.

The group who related their experiences in the administration of intellectual property in institutions of Israel, the United States and Great Britain, had as their moderator Edgar Dutra Zanotto, Assistant Coordinator to the Scientific Board of FAPESP. Dr. Zanotto gave an outline of the Foundation and spoke about the recent organization of the Núcleo de Patenteamento e Licenciamento de Tecnologia (Nuplitec) [Center of Patenting and Licensing of Technology] for the protection of intellectual property and above all, for its licensing.

Peter Bailey, of the oldest patenting office in the world, the British Technology Group (BTG), founded 50 years ago, affirmed that the transference of technology and the obtaining of patents require multi-disciplinary teams, ready to evaluate the economic potential of the research, to study the best methods of protecting it, as well as conceiving marketing strategies for putting the product on the market. The BTG has 180 professionals spread throughout diverse areas of the work. In 1995 the organization began to have its shares sold on the London Stock Exchange. Bailey related that the BTG has even gone to the point of mounting companies in order to develop new products. "Recently we organized a company solely to develop a new medicine for the treatment of varicose veins." he said.

Renée Ben-Israel, of the Yssum Research Development Company, who defends the rights of the researchers at the Hebraica University of Jerusalem, stated that the company registers on average between 45 and 55 patents from the university each year. Mr. Ben-Israel affirmed that the company Yssum works as a commercial arm of the university. "Our tariff is to say if the

invention is patentable, if it will be commercially attractive, the exact date to deposit the patent before itbecomes obsolete." he explained.

The organizers are planning new seminars to amplify the debates about the theme. There is already scheduled for the end of the first semester of 2001 the realization, in São José dos Campos, SP, of a symposium to discuss the relations of the research institutes, notably those installed in the city, such as the Instituto Nacional de Pesquisas Espaciais (Inpe), [National Institute of Spatial Research], along with the industries. The meeting, which will have the support of the World Organization of Intellectual Property, will evaluate the possibilities of the transference and intellectual protection of new technologies between centers of research and industry and the prospects for a greater approximation between the two segments.

"Companies have familiarity with the commercial side of innovative technology and the academic world with the knowledge. Partnerships could bear fruit for both sides." affirmed Scholze. The debates and the presentations of*Scientia 2000* will be divulged in a special publication to be edited in a partnership among Fiocruz, MCT and the Foundation Konrad Adenauer of Germany.