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FEDERAL PATENT POLICIES  
COMMENTS AND OBSERVATIONS

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BEFORE  
THE SUBCOMMITTEE ON SCIENCE,  
RESEARCH AND TECHNOLOGY  
(TASK FORCE ON FEDERAL PATENT POLICY)

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The opportunity to participate in the hearings is very much appreciated.

My remarks today are made on behalf of the Society of University Patent Administrators which is a professional society of individuals, all of whom have some responsibility for administering inventions and patents in connection with some university and which now counts over 100 members associated with 77 separate universities; the American Council on Education which is the nation's largest association of colleges and universities, numbering among its members approximately 1300 institutions of higher education, 20 national and regional associations, and 80 affiliated institutions and organizations concerned with higher education in the United States; the Committee on Government Relations of the National Association of Colleges and University Business Offices, which Committee is supported by 119 leading universities which, as a group, are the recipients of over 90% of the funds made available to higher education through grants and contracts for scientific activities.

I have been involved in the transfer of technology developed by Purdue University for the past 15 years as Patent Manager, Office of Patent Management, Purdue Research Foundation, which Foundation functions as the invention and patent administrative arm of Purdue University.

Academic institutions receiving public support have long had an objective to encourage the development of new knowledge and new ways of putting knowledge to practical use. We firmly believe that technology developed with public funds must accrue to public benefits. Many of such benefits can only accrue through the patent system.

Many academic institutions receiving federal funds for support of research have a well-defined patent policy which (1) stimulates creativity, (2) encourages industry to invest risk capital to bring the technology to the marketplace for public benefit, and (3) protects the public interest.

The vast majority of inventions at academic institutions are embryonic in nature. Without risk capital to bring these inventions to the marketplace, the technology will not get developed and not accrue benefits to the public. Risk capital can only be attracted when technology can be licensed expeditiously and exclusively for a period of time that will permit the licensee to recoup investments. The funds required to bring the invention to the marketplace is 10 to 20 times the cost of "making" the invention.

Much has been published recently concerning the "technology gap" being experienced in the United States. The United States Government has title to over 28,000 patents with approximately 5% licensed, indicating most of the new technology in the hands of the government never accrues benefit to the public. On the other hand, a recent survey of 48 universities by the Society of University Patent Administrators showed that 50% of the patents titled to academic institutions were licensed.

In an article in SCIENCE, Volume 202, 17 November 1978, Mr. William Carey stated "If budget dollars are to be scarce, government can help the utilization of R&D it has funded by overhauling its static patent policies." In another article in SCIENCE, Volume 205, 27 July 1979, with reference to innovation, Mr. John Welsh states "As to what government can do, there is widespread sentiment that government could help most if it stopped hindering. The blame is put squarely on 'disincentives' built up in federal regulator rules, tax policy, and patent and antitrust laws."

Government patent policy to date has been on an agency-by-agency basis resulting in some 20 or more "policies" varying from those with the "title" policy to those with the "license" policy and all variations in between. Governmental agencies operating under the "title" policy insist on acquiring title to all patents developed by contractors and grantees and then dedicating them to the public through either (1) offering a royalty-free, nonexclusive

license to any and all, or (2) publishing the results. The argument that title should be acquired since they had been "paid for" by the Government results in another patent for the government archives but little technology transfer.

The "license" policy of some of the agencies permits the grantee and contractor to retain title with the government having a royalty-free license to practice the invention for governmental purposes. In academic institutions most inventions are incidental to the specific research; consequently, the Government asks for nothing more than a royalty-free right to practice the invention. However, within the universities, the research is frequently funded by more than one government agency and, at times, funds from other sources, including the institutions' own funds. Uncertainties of patent policies result in delays and adverse effects on the transfer of technology.

Philosophically, the university community believes that a uniform patent policy providing incentives for technology transfer should apply to all grantees and contractors. However, as a practical matter, the greater need lies primarily with the universities, nonprofit organizations and small businesses. With universities and nonprofit organizations, technology transfer depends entirely on the strength of the patent position. With small businesses the patent right is essential for it to compete.

Although, as mentioned earlier, the development of the invention is only a very small part of the cost of making the technology available to the public, a reasonable payback provision from royalties received would be acceptable in legislation establishing a uniform patent bill.

In order for academic institutions to maximize the results of its research programs and accrue benefits to the public through technology transfer, the university community seeks a Government patent policy that will have the following characteristics:

1. Any policy must permit to the maximum extent incentives for commercialization of university inventions made under Government grants and contracts. <sup>an</sup> The most important ingredient in technology transfer is the continued interest of the inventor, <sup>and in most cases a</sup> Any successful transfer requires the know-how of the inventor. Such is not possible if titled to the government. There must be some reward for the inventors' efforts through sharing of royalty payments.

2. Any policy must encourage cooperative efforts between the universities and industry in both the transfer of technology and in research support. The university is oriented to basic and fundamental research and differs from the R&D undertaken by large commercial companies. It does not manufacture and sell goods but can license and cooperate with industry in developing the product or process. The university must retain title to inventions, attracting the risk capital through industry to develop the invention so

*the combination of tax and individual*

that the public can realize the benefit of (their tax dollars). Any discussion of disposition of inventions should not be whether the Government or contractor should take title to such inventions when developed in whole or in part by government funds, but in whose hands will the technology most likely result in benefits to the public.

3. Any policy must be such that the results are a simple and uniform system that minimizes administrative burdens for both the university and the government. It must be one that does not require deferred determination, petitions, waivers, government committees, and layers of bureaucracy. Investigators (inventors) at academic institutions are not interested in pursuing inventions that are delayed through government "red tape" and committees. They lose interest rapidly.

4. Any policy must have a system that will recognize the equities of the university and, in many cases, the state that supports the university.

5. Any policy must permit the government to "march in" and license any technology when the licensee has not taken or is not expected to take, within a reasonable time, effective steps to achieve practical application of the invention. Every effort must be made to assure that any developments accrue benefits to the public.

6. Any policy must contain appropriate provisions which will protect the contractor against arbitrary acts by Agency individuals

that would deny rights of the grantee or contractor or delay the effort to transfer the technology. It should not provide for the surrender of background patents and should not have compulsory licensing provisions.

Concern has been expressed relative to "windfalls" resulting from permitting contractors to retain title to inventions. Much of this concern was in reference to large companies that already have a dominant technological position. Academic institutions do not make or sell any product or process; therefore, there would be no way they could dominate any market. It would be unlikely that a small business would have a dominant technological position and, hence, dominate the market.

*not true*  
S414/<sup>HR 2414</sup> attempts to recognize this situation. The various Federal agencies could continue to relate to large commercial companies as they have in the past.

S1215 has provisions which cause concern to academic institutions:

1. Definition of a "qualified technology transfer program" is somewhat open-ended and could perhaps be an agency-by-agency determination, thereby resulting in an institution being "qualified" by some agencies and not others.
2. The likelihood of a case-by-case determination of patent title by each agency, thereby resulting in a "non-uniform" policy.
3. The presumption of title in the Government, resulting in delays.

Experience over a number of years has indicated the case-by-case and other delays in determinations curtail technology transfer.

It is my opinion that S414 most adequately meets the needs of the universities, provides the incentives to maximize the transfer of technology, and protects the Government's (and more importantly) the public's interest.