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NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

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OFFICE OF THE GENERAL COUNSEL

May 9, 1974

PATENT BRANCH, OGC DHEW

APR 7 1978

Mr. Tom van der Voort
Legislative Assistant
5241 New Senate Office Building
Washington, D.C. 20510

Dear Mr. van der Voort:

In response to your request, I am enclosing various materials relating to NSF Patent Policy and the general question of whether the Government should require a return of a portion of any royalties received by universities from the licensing of inventions the development of which was in whole or in part supported by the Government.

I would personally strongly recommend against adopting such a policy. The income to the Government that would be generated would be miniscule. On the other hand, such a policy might create a strong disincentive for universities to attempt to transfer their technology to industry where it can be brought to the market place. Most inventions made at universities require further development work to move them from the laboratory to industrial production or use. Marketing efforts are also normally required. As a general rule these costs are many times higher than the cost of the initial R&D work leading to the invention. (See, for example, Vol. 4, p. 110 of the Report of the Commission on Government Procurement). However, the universities are not likely to undertake the costs of maintaining an active licensing program if these are to become losing propositions. I believe, although I do not have statistics on this, that the licensing efforts of all but a handful of universities are marginal in terms of costs versus return of income. If they are required to return a portion of royalties to the Government many of these programs might go into the red and be discontinued. And other universities which may now be considering such efforts (I believe there is some movement in this direction) might be dissuaded from undertaking such efforts. The net result would be that much valuable university research would not find its way to practical application.

To give you a better feel for the whole question of Government patent policy vis-a-vis the universities, I am enclosing a copy of a draft report (Tab A of the enclosed materials) prepared by the Ad Hoc Subcommittee on University Patent Policy of the Committee on Government Patent Policy of the Federal Council for Science and Technology. I would wish to emphasize that this report is only in draft form, is currently undergoing revision, and has not yet been adopted or agreed to by the FCST, the Committee on Government Patent Policy, or the Executive Subcommittee of the Committee on Patent Policy. Thus it is preliminary in nature. Nevertheless, I believe it contains much useful information. Note particularly Appendix B which contains information concerning royalty income of certain representative universities from the late 1950's to the late 1960's.

By way of supplementing that information, it should be noted that most universities do not directly license their inventions. Most that do anything in this area rely on the services of patent management organizations, the two most prominent being Research Corporation and Battelle Development Corporation, both of which are non-profit organizations. Research Corporation has agreements with around 250 universities. Yet, according to its annual report for 1972 the total royalties returned to universities that year were only $358,000 of which $106,000 went to the individual inventors. These figures, incidentally, include royalties on a number of inventions that were not developed under Government grants or contracts. Our files do not have similar information on Battelle activities.

We also have some information on universities not included in Appendix B to the Ad Hoc Committee report and some later information on some of the same universities. This is summarized below.

This information also includes income from non-Government supported inventions. And a portion of this income, generally 15-50%, is shared with the inventors, not as an incentive to invent, but in order to encourage the inventors to take the time and trouble to prepare and make invention disclosures and assist in the preparation of patent applications and licensing activities.

Moreover (except as noted), these are gross income figures before patent and administrative expenses which can be quite large. For example, the Wisconsin Alumni Research Foundation, which acts as the

patent agent for the University of Wisconsin, which has one of the most active and successful technology transfer programs, had gross royalty income in fiscal year 1973 of $920,000 (of which $644,000 came from one non-Government supported invention). The net income from their licensing activities for the year, however, was only $327,000. Besides legal and filing fees their costs include roughly three man-years of professional effort and two man-years of secretarial help. Moreover, they absorb some costs of a laboratory that conducts feasibility studies of proferred inventions. These latter costs are, incidentally, not reflected in the net income of the University of Wisconsin shown for the years 1969-71 in the chart below. It should also be noted that these figures do not include the administrative costs of the University, itself, which initially receives disclosures and processes them before they are assigned to WARF.

The other University receiving substantial royalties about which we have information is the Massachusetts Institute of Technology. In 1973 their net income was around $760,000 on a gross income of approximately $1,200,000. Similar figures have prevailed during earlier years. We also understand that most of their income, unlike the Wisconsin case, is derived from Government-supported inventions. However, most of their income derives from three patents. One is now the subject of an interference proceeding and the others will be expiring before long. Thus, they expect that their gross income will begin to see a substantial drop in the next few years, while their expenses will probably remain fairly constant.

The information from universities referred to above follows:

Gross Royalty Income (Thousands of Dollars Rounded to the Nearest 1000)

University	1969	1970	1971	1972	1973
University of Wisconsin	454[1]	457[1]	476[1]	891	920
University of Virginia	0	0	0	0	0
Stanford University	0	55	71	75	-
University of Vermont	0	0	0	0	0
Rockefeller University	0	0	0	0	0
Purdue University	49	37	41	56	94 (first 6 mos. only)
Princeton University	0	0	0	0	0
University of Michigan	0	0	8	11	72
University of Miami	0	0	0	0	0
Mass. Inst. of Technology	1,200	1,200	1,200	1,700	1,200 (Est.)
University of Georgia	2	0	0	5	-
University of Delaware	0	0	0	0	-
Cornell University	13	14	25	91	-
Colorado State University	-	62	55	54	72
California Inst. of Technology	9	22	14	19	28

[1] These are net income figures, although they are around $100,000 higher than net after certain additional laboratory expenses not reflected in these figures.

Finally, I have enclosed various materials related to NSF Patent Policies. Tab B of the enclosed materials contains a copy of the National Science Foundation Patent Policy as adopted by the National Science Board in March 1973. It might also be noted that proposed regulations (final regulations are in the process of being issued) appeared in the January 22, 1974, issue of the Federal Register. Tab C includes a copy of the patent clause included in most NSF grants and contracts. Finally, Tab D includes a copy of the terms and conditions upon which we normally allow a University to retain principal rights in an invention where such retention is determined to be in accord with the public interest. Of course, in individual cases, variations may occur.

The discussion above deals with university inventions generally. Since most of the research supported in universities by NSF is basic in nature, very few inventions are made and most of these are of scientific instruments or other laboratory devices rather than products or processes having a large potential market. The possible royalty income from NSF supported research therefore can be expected to be well below the average income based on all university research.

I hope that this information is adequate for your purposes. If you desire additional assistance please do not hesitate to call upon me.

Sincerely yours,

Charles F. Brown

Charles F. Brown
General Counsel

Enclosures