



Technicon Instruments Corporation

April 26, 1978

Mr. A. Sidney Alpert
Vice President
University Patents, Inc.
2777 Summer Street
Stamford, CT 06905

Dear Mr. Alpert:

This letter will up-date you on the status of the grant proposal submitted in December by Dr. Thomas C. Cetas of the University of Arizona under Technicon's Program of Grants.

I am writing to advise you that our decision regarding any award based upon this grant proposal will be determined in large part by the availability of an option to Technicon to acquire an exclusive license under any inventions relating to the temperature sensor. I understand that such option requires clearance from the Department of Health, Education and Welfare.

Dr. Cetas' proposal has been reviewed by several authorities on the measurement of tissue temperatures during microwave hyperthermia. We have learned that there are several alternative methods under development by others for measuring tissue temperatures during such treatment. However, we have been advised and believe that Dr. Cetas' method shows more promise than any of the other methods.

Also, we have made inquiries regarding the results of clinical trials of microwave hyperthermia for the treatment of tumors. We have been informed that the results, while somewhat inconclusive, are quite promising. The inconclusive results may be due, in part, to the fact that most trials are being made without adequate measurement of tissue temperatures.

Dr. Cetas presently has only a single thermometer of his design and is seeking a grant to construct an additional ten thermometers to allow clinical trials to be conducted concurrently in several institutions. Also, he intends

Mr. A. Sidney Alpert
April 26, 1978
Page 2

to improve the sensor proper and undertake to design a commercial prototype. We believe that faster progress can be made if Technicon were to cooperate with Dr. Cetas regarding these projects. From past discussions with Dr. Cetas, we know that he has been thinking in terms of a cooperative program with industry.

We are seriously concerned about two non-technical aspects of this program. It is difficult to estimate either the probable sales of the thermometer or when the market might become large enough to allow us to recover our investment. We believe that microwave hyperthermia therapy for tumors will be used in clinical practice, but only on a percentage of cancer patients. If the therapy is to be used to best effect, the monitoring of tissue temperature will be important. We cannot predict how many other temperature sensors will become available to the medical practitioner. Nor can we estimate the time which will be needed to obtain acceptance of such therapy. It will certainly take years, not months.

These uncertainties might be acceptable to Technicon, if we were assured that we could commercialize Dr. Cetas' development on an exclusive basis. Such exclusivity should be granted, we believe, in consideration of Technicon's sharing of the costs and risks associated with Dr. Cetas' development. Also, the University of Arizona would be entitled to royalties resulting from such commercialization.

We believe that Dr. Cetas' development will move faster with cooperation by a commercial sponsor than if it is done by a university alone, even if generously supported by Government funds. Technicon has extensive experience in engineering and manufacturing sophisticated equipment to perform safely and reliably in hospitals, which skills are very rarely found outside of industry.

The availability of an exclusive license is an essential condition for Technicon to participate in, and support the development and testing of Dr. Cetas' device so that it can be rapidly brought to the marketplace and benefit the public.



Mr. A. Sidney Alpert
April 26, 1978
Page 3

I hope that the situation concerning the licensing of the patent can be resolved soon so that Technicon can move ahead with its decision on the proposal from Cetas.

Yours very truly,

Morris H. Shamos
Senior Vice President &
Chief Scientific Officer

MHS:jb