

such experiments were successful, would the doubters, the die-hards, and those who refuse to believe the evidence be convinced that cigarettes have anything to do with human lung cancer? I doubt it, because almost certainly some would still say, "Well, after all, the bronchial mucosa of an animal is not the same as that of the human."

It will be interesting to see if the Tobacco Industry Research Committee can produce any work that will refute the torrent of evidence from different parts of the world in favor of a definite etiological relationship between heavy cigarette smoking and cancer of the lung. Great Britain's Minister of Health (13) on March 5 of this year tersely expressed to the House of Commons the opinion now generally held in that country. He said, "What has been shown is that there is a causal connection between smoking and lung cancer—that we know."

Yours truly,

EVARTS A. GRAHAM

*Emeritus Professor of Surgery  
Washington University, St. Louis*

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#### To the Editor of *Cancer Research*:

Dr. Graham is quite right in calling attention to my error in referring to the statistical paper of Hammond and Horn as "the first statistics indicating an association between cigarette smoking and the incidence of lung cancer." I should have inserted, after the work "first," some such qualifying phrase as "widely publicized," or "presented by the American Cancer Society." It might be added that the fact that the American Cancer Society considered it expedient to conduct long-time and costly statistical studies on this subject indicated that the previous articles referred to by Dr. Graham had failed to convince the Governing Board of that Society.

As regards the causal relationship, there is, in spite of Dr. Graham's long-recognized conviction on this matter, a difference of opinion even among those familiar with statistical evidence. Many of these doubts are not published, but there is very clear evidence that they exist.

A number of individuals, myself included, do not wish to enter into a controversy, but prefer to wait for additional experimental evidence, either pro or con this hypothesis, which we believe the future will produce.

Dr. Graham's quotation from Great Britain's Minister of Health should, I feel, be supplemented by the conclusion of the Minister that in the face of all evidence he did not consider that the data justified an anti-tobacco campaign. A conclusion of that sort appears to me to have more significance than an isolated quotation.

There is one further very important statement made by Dr. Graham which shows an unfortunate failure on his part to understand the program of the Tobacco Industry Research Committee, and of its Scientific Advisory Board. The Tobacco Industry Research Committee conducts no re-

search of its own. It appropriates funds for research work at universities, hospitals, and other institutions throughout the country in very much the same way as does the Rockefeller Foundation, the American Cancer Society (in experimental fields), and other granting agencies. Its objective is to obtain more facts and *not* to establish any theory or preconceived hypothesis, or to contradict any such attitudes. This fact has repeatedly been made clear in statements to grantees, in journals, and in other publication. Dr. Graham's statement, "It will be interesting to see if the Tobacco Industry Research Committee can produce any work that will refute . . .," is therefore not applicable to any of the past, present, or future activities of the Committee.

It is interesting that Dr. Graham states that as far as he knows "nobody has ever made the claim that cigarette smoking is the only etiological factor in the production of bronchiogenic carcinoma." The fact that this point of view is held even by the most crystallized "anti-tobacco" adherents indicates very eloquently the need for further research and the danger of overemphasis and false satisfaction based on the incomplete evidence now available.

Sincerely yours,

C. C. LITTLE,

*Chairman and Scientific Director  
of the Scientific Advisory Board  
to the Tobacco Industry Research Committee*