

## SMOKING CONTROVERSY

SPEECH OF

HON. TIM LEE CARTER

OF KENTUCKY

IN THE HOUSE OF REPRESENTATIVES

Wednesday, March 18, 1970

Mr. CARTER. Mr. Speaker, those of us who attended last year's lengthy hearings on this bill were amazed to find, from the scores of scientific experts who appeared before us, that virtually no significant progress has been made in research to resolve the smoking controversy since the Congress last acted on this matter 5 years ago.

Last month, just as the conferees were about to meet on this bill, the American Cancer Society held a news conference to announce results of certain smoking experiments involving beagle dogs, in which some manifestations of lung cancer were said to have been observed. One witness before our committee had been Dr. Victor Buhler, one of America's most distinguished pathologists and a former president of the College of American Pathologists. Recalling his testimony regarding animal smoke inhalation studies, I wrote to Dr. Buhler and asked him to comment on this latest report. His reply strikes me as a perfect illustration of the difficulty of deriving real meaning from research results which are publicly reported, with great fanfare, before there has been any opportunity for critical scrutiny by qualified scientists.

Dr. Buhler's letter speaks for itself, and, without objection, I would like to share it with our colleagues, as follows:

St. Joseph Hospital,  
Kansas City, Mo., February 21, 1970.  
Hon. TIM LEE CARTER,  
House of Representatives, Longworth House  
Office Building, Washington, D.C.

DEAR DR. CARTER: Thank you for your recent telegram in which you inquired about an animal smoke inhalation experiment announced by Drs. Auerbach and Hammond earlier this month.

In connection with my testimony before your Committee last April (which, of course, was long before Drs. Auerbach and Hammond announced their results), I stated that in some inhalation experiments "there has been considerable trauma to the respiratory system of the animal by the procedures used." I went on to say that if lung cancer were produced by this experimental method, "I would have to question the effect which the trauma itself might have had in the result."

The method used by Dr. Auerbach is just such an experiment to which I made reference. He used dogs (beagles) who "smoked" in an unnatural way by means of a surgical incision in the neck tissues and trachea which was permanently kept patent by use of a foreign body (a hollow tube). This is certainly much different than the way in which a human being smokes a cigarette.

As you know, a scientist usually informs his colleagues and shares the knowledge of his experimental work by publishing the results of his experiment in a reputable scientific journal. The results of the latest Auerbach experiment have not been so published. My first knowledge of these experiments came from a front page article in our local newspaper.

Immediately after the newspaper article appeared, I obtained a copy of the report which was the basis for the newspaper publicity. I have read this report several times and carefully reviewed its contents. In responding to your request for my comments, I am compelled to say that the report raises several important questions. For example:

1. Experimental results offered as scientific evidence are only as good as, and can be no better than, the experimental model used. With this in mind, how can anyone claim that this experiment approximates the natural method of smoking in humans? The method used by Dr. Auerbach involves the direct delivery of cigarette smoke to the lower trachea, the bronchi and the lungs, thereby bypassing the oral cavity, the pharynx, the larynx and the upper portion of the trachea. A tracheotomy is a most unnatural way for an animal to breathe and certainly introduces the possibility of infection, both bacterial and viral, not only from the tracheotomy, but also by the constant irritation of the hollow tube used to keep the tracheotomy patent. I should think that such a technique would arouse extreme skepticism. Not only were all of the protective mechanisms of the upper respiratory tract not allowed to function, but also the mixing of air and smoke which occurs under normal smoking conditions could not have occurred. In earlier beagle dog experiments, Dr. Auerbach reported that five successive inhalations of smoke were taken in by the dog without intervening inhalation of air. The dog's mouth and nostrils would presumably have to be closed by physical force so as to allow for inhalation through the hollow tube in the throat. These indisputably traumatic conditions could in themselves be causative and therefore create extreme doubt as to the meaning of the reported results.

2. It may well be that the dog is not a suitable animal for lung experimentation. For example, McLaughlin, Tyler and Canada have warned experimenters in their article entitled "A Study of the Subgross Pulmonary Anatomy in Various Mammals", *American Journal of Anatomy* 168(2): 149-165 (1961), that "... great caution should be exercised in the choice of an experimental animal for pulmonary studies if they are to be applied to man. This is especially so if the dog, cat, or monkey are to be used, in view of their marked anatomical differences from man."

3. Why were there only eight control dogs out of a total original population of ninety-seven dogs? Were the control dogs subjected to simulated smoking and otherwise treated in every way as were the other dogs? It does not appear that a properly controlled air stream directed through the tracheostoma was substituted for "smoke" and unless this was done I am inclined to question whether these eight dogs could be deemed adequate controls.

4. It is not at all clear what Dr. Auerbach means by the word "early" in his reference to "early squamous cell bronchial carcinomas." This is not standard terminology so I do not know whether he has reference to "carcinoma-in-situ" or to some other lesion. Since Dr. Auerbach's results have not been published, including adequate photographs, and since the criteria utilized are not clear, one should exercise great caution in drawing any conclusions at this time from the descriptive phraseology used.

5. Most of the "invasive tumors" reported in the dogs that "smoked" were described as being of a bronchioloalveolar type. This is the type of cancer which is infrequent in human beings. Even the Public Health Service has not associated this type of tumor with cigarette smoking. Does Dr. Auerbach refute his previous reports of a relationship of squamous cell carcinoma and smoking in humans by now claiming that the bronchio-

alveolar type is more prevalent? [I should add that I cannot determine from the report how many "invasive tumors" in all were tumors deemed malignant, whether bronchioloalveolar or squamous, had metastasized.]

6. Dr. Auerbach has reported tumors in over sixty percent of the "smoking" dogs in the groups sacrificed. Based on my knowledge and experience, there is no such incidence, similar to these statistics, in any human population.

7. Similarly, an amazing twenty-five percent of the non-smoking dogs were reported to have developed tumors. What might the percentage have been if the dogs had been allowed to live out their entire lives? Serious questions are raised by this reported finding with respect to the use, not just of dogs generally, but of the beagles in this particular experiment. Was any real control of genetic, viral, environmental and other factors imposed?

Medical "breakthroughs", usually announced in newspaper headlines, often turn out to be disappointments when subjected to careful scientific scrutiny. For example, a December 1967 article by Harris and Negroni reported the production of lung tumors in cigarette smoking mice. It was hailed by an American Cancer Society sponsored bulletin, widely distributed to dentists and physicians, as undermining "one of the long-standing defenses of the tobacco industry." The headline on the story read "Lung Cancer: Another Experimental 'First'." But in the published article, the authors cautioned that "the mouse lung cannot be equated histologically with the human lung, and so 'degrees of carcinogenicity' derived in one system may have no validity for the other." Even HEW's 1968 Supplement to *The Health Consequences of Smoking* summed up this "scientific breakthrough" as follows: "Harris and Negroni, in experiments with C-57 black mice, some of which were inoculated with viruses, achieved some enhancement of adenocarcinoma, but did not produce any proven squamous cell cancers."

It must be remembered that scientists have failed to induce human type lung cancer in animal experiments for nearly thirty years by having the animals inhale cigarette smoke. In view of these findings, the unpublished report by Dr. Auerbach must be viewed with considerable restraint. I sincerely hope that his reporting of "early squamous cell bronchial carcinoma" in only two dogs will not be viewed by your Committee as scientific proof as to whether or not cigarette smoking has been established as the cause of lung cancer in humans.

Respectfully,

VICTOR B. BUHLER, M.D.,  
Pathologist.

## SUPPORT FOR ISRAEL

HON. JAMES H. SCHEUER

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, March 26, 1970

Mr. SCHEUER. Mr. Speaker, the national interest of the United States dictates that we do everything within our power to preserve peace in the Middle East.

Peace in the Middle East is only possible if the Israelis and Arabs sit down and negotiate a peace treaty. History does not record any peace settlement achieved without a joint effort of the contending parties to settle all outstanding claims around the conference table.

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