

May 4, 1967

Mr. Henry Ramm

Subject: Dr. Perry Hudson's Reports Dated
April 21 and February 22, 1967

GENERAL COMMENTS

The new reports by Dr. Hudson are as confusing, noncritical, and unenlightening as the first chemosol report. In general, his answers to the specific questions are unsatisfactory in that they do not provide the opportunity for evaluating what has been done and the significance of it. Even discounting the details omitted for alleged security reasons, the latest writing provides no better basis for scientific evaluation of his work than the previous.

On page 1 of his letter to Congressman Watts, the first three paragraphs provide no answers, only statements of generalities and of opinion. In paragraph 4, page 1, the second sentence intimates that quantity of smoke condensate is unimportant, that the quality dictates the effect. In the original report, there were highly significant differences in quantities of tars derived from untreated and chemosol-treated cigarettes. These differences could reflect variations in procedure all along the way and not differences due to the added chemosol. It is not possible to separate a pharmacologic response from the quantity of chemical given to elicit that response. The statement ending paragraph 4 apparently reflects total ignorance of this concept. The following paragraph, the last one on page 1 and first on page 2, adds no information to the document.

Page 2, paragraph 2, mention in this paragraph of fibrosarcoma can only be related to the statement dated February 22, "Additional Information to be Added to the Hudson Report," which follows the letter. In this report, reference is made that mice treated with the untreated residue develop fibrosarcoma and lymphosarcoma. No statistics are given, and no data are presented, making an evaluation impossible. The third sentence in this paragraph is a classic in gobbledygook. The last sentence in that paragraph, as a flat statement, would appear to be a marked departure from results obtained by smoke condensate as reported in previous literature. This paragraph certainly offers nothing on which to make an objective evaluation of the work.

Under I. Biological Section, it is difficult to relate Dr. Hudson's presumed answers directly back to the questions which were submitted to him. The purpose of the questions, of course, was to force him to provide specific information which would permit the objective evaluation of the work.

In paragraph 1, under Biological Testing, a nonscientific bias is demonstrated in the second sentence where these procedures were reported to be employed, "to screen against the remote possibility of increased

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toxicity of smoke residues, etc." The concept appears to have been in their minds that changes in pyrolysis products were expected to produce only favorable results, no unfavorable ones. The next paragraph adds nothing more specific than in the previous publication. The third paragraph under the Biological Section is in answer to inquiries for specific conditions for preparation of the tobacco, and it provides no specific information as requested.

Paragraph 2, page 3, is a hodgepodge of subjects, most of which are generally meaningless. Sentence 5, if taken at face value, reflects the absence of scientific quality from the entire work; namely, "acid washes are not always used." This implies, as the rest of his work has, that variations occur in the day-to-day treatment of the smoke condensate. In the previous publication, it was stated that acid washes were always used to remove nicotine from the residues. The second part of that sentence again reveals the inconsistency, "recovery experiments . . . yield total recovery on the one side and zero on the acid side;" Here it is stated that acid treatment prevents them from recovering the agent which they accuse of causing their biological effects. The next sentence indicates that the author may not be aware of the cocarcinogenic properties of sesame oil and croton oil as contrasted to acetone as a carrier for benzpyrene or similar agents. Three attached publications demonstrate that otherwise noncarcinogenic agents become carcinogenic when dissolved and administered in sesame oil.

Paragraph 3, page 3. The choice of the CFl mouse, a tumor resistant strain, is somewhat unusual because of the difficulty of producing cancer with tobacco tar in nonsusceptible animals. Also, to my knowledge, the ten-day period of injection appears to be a great departure from routine studies previously conducted on cigarette tars.

Final paragraph, page 3. The first statement borders on absurdity. It implies that decision to run weight gain studies is made retrospectively; and, of course, the retrospective decision would prevent the study from being conducted. The next sentence, "no statistical technique was either required or employed . . ." is also absurd, based on the fragmentary weight-gain chart which was seen in the previous publication. The question about the amount of material injected was not answered; the purpose of that question was to determine how such large volumes as were calculated for the 100-cigarette dose could be given to a small mouse. The last paragraph under the Biological Section has the animals dying from arterial occlusion, while the second paragraph on page 2 has animals dying of fibrosarcoma.

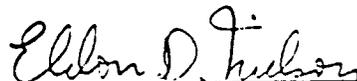
Throughout the Biological Section there is nothing more enlightening than was found in the previous publication.

In the Chemical Section, page 4, the first paragraph says nothing which was not contained in the earlier report and defines no new conditions. In the second paragraph under the Chemical Section, the only information, not made clear previously, was that the smoking was conducted continuously and condensates were not stored.

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The following paragraphs under this section simply do not answer the questions which were submitted to Dr. Hudson. They contain merely qualitative statements and, as such, provide no basis for evaluating the validity of the work. The biological content of the third paragraph on page 5 cannot be evaluated. No statement has been made as to how many animals developed malignancies. Hudson says the experiments involved hundreds of animals and that multiple malignancies resulted. The only possible way of evaluating any of these statements is to have figures stating how many animals out of how many treated developed malignancies. The next to the last paragraph again borders on the ridiculous. What in the world could possibly be meant by the concept of "practically zero"? If a minimum of 1 gram of material is detectable, this could be called "practically zero."

The final statement brings out just the point which the questions to Dr. Hudson attempted to make. His statement, "the performance of numerous types of chemical experiments and biological studies involving thousands of animals, have resulted in the accumulation of documented evidence beyond that necessary to substantiate the conclusions stressed here." It is the numbers and the figures which the scientists must see for evaluating purposes. Hudson still has failed to produce these figures, but has only used words to say that these are all available. If they are available, they should be made available for the scrutiny of the scientists and should be laid out in a manner where direct comparisons between treated and untreated can be made. Nothing which Dr. Hudson has written to date provides this information.


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