Dr. Ley. I believe I would say that it would be unusual, Mr. Chairman. This was one of the features that raised questions in our own

minds about this particular set of investigations.

Senator Nelson. Doesn't it bring to mind the question that has been raised many times in testimony before this committee about the whole system of leaving the selection of tester and the monitoring of the testing and submission to phase 1, 2, and 3 IND's exclusively in the hands of the sponsor of the drug, who obviously has an interest in getting it marketed, and in the hands of a tester, who, if he is doing as many as were done here, may very well have the desire to make a favorable

report

Dr. Ley. It raises serious questions about the reliability of investigations done in this set of circumstances that we have outlined in case 2. The questions that it raises, I agree, include those that you have raised. They also include the question of whether our activities in this area should not be increased. This is an equally good question. It is obviously impossible, as I said in my statement, to require that we in FDA monitor individually the 15,000 investigators. That would be an impossible task. I am convinced, however, that the identification of such cases as this one we had just described and its dissemination as a fact among the medical community has had a very beneficial influence on many other investigators.

Senator Nelson. I think it must be recognized that there is a strong possibility of inherent bias on the part of the sponsors of a product as well as on the part of the testers of that product in their efforts to

get the product approved and on the market.

Dr. Ley. There is this possibility, Mr. Chairman. On the other hand, I think it is also appropriate to point out that we have taken a series of steps to identify the investigators that are responsible for the largest number of investigations—this is a very important factor. If a man is engaged in private practice and is responsible for or is ranked as one of the five most active investigators in the country, this raises some very significant questions. This method of reporting and analysis by physician totaling the number of studies in which he has been involved was initiated in 1966 and has been carried on. We are in the process at this point of placing this data into a computer-active file so the information will be even better available. I think these kinds of steps on our part will focus the attention on specifically the type of investigators you imply might be looked for by pharmaceutical firms. This particular man has been disqualified. He will not appear in investigational studies in the future unless there are some very, very, very major changes made both by him and his facilities.

Senator Nelson. There have been 15,000 investigators since 1963,

and 6,000 IND's—do I recall your statement correctly?

Dr. Ley. Yes, sir.

Senator Nelson. Then you may evaluate the testing being done by a few or perhaps even a hundred of the most active investigators—but that leaves you more than 14,900 investigators who are not monitored—and among these there will be the same percentage of biased individuals selected by a sponsor who have a very important interest in the result. How do you monitor such a large number of testers?

Dr. Ley. There are several ways that we get at this type of situation and I think perhaps case No. 1 would be an excellent example. Within