

ciently and the laboratory makes better use of the total funds spent. You could agree with that?

Dr. MACARTHUR. I would certainly agree with that. It comes down in the end to the laboratory leadership. It comes down to the laboratory director himself because he has to make the final judgment on these programs as they are presented to him by his staff. Where we have a good laboratory director, the program has been very successful. In cases where you don't have a good laboratory director, it won't be as successful because he is probably supporting ideas that aren't very good. Through after-the-fact evaluation, the one who does well, should get more money next year.

Mr. DADDARIO. Have you come to any judgment over the course of time as to the percentage necessary? You are under some constraint there to spread out beyond these figures apparently because of your problems with the Congress. Do you think the amount is about right, or do you think you should have more or less?

Dr. MACARTHUR. I don't think we should have less. Whether we should have more, I really don't know. I think it should be in the ballpark of somewhere between 3 to 6 percent. I don't think it should be 20 or 25 percent. Looking at industrial analogs which we have looked at there is even a very wide variation there, but, in general, it varies between 3 and 10 percent for the big corporations.

Mr. DADDARIO. As you view the entire laboratory establishment in other agencies, would you support as a matter of policy that this should be a prevailing situation? Would you say that laboratory directors should have such discretionary authority, taking into consideration that some criteria mechanism to judge the quality of the work must be established?

Dr. MACARTHUR. I certainly would with one caveat, provided they have the same problems that we have in terms of the budget process and the many echelons of review and approval.

Mr. DADDARIO. Yes, taking that into consideration.

Dr. MACARTHUR. Yes, I certainly would.

Mr. DADDARIO. How about echelons of review? What is your view on that?

Dr. MACARTHUR. Well, as far as independent research programs are concerned?

Mr. DADDARIO. Yes, do you have a problem because of these layers of review which inhibit your activities?

Dr. MACARTHUR. We certainly have a problem in management of our labs because of many echelons of review because what generally happens is that the laboratory director is given a lot of responsibility many times, but doesn't have the authority to go with it because as you go down the echelons of review there is a little taken away here and a little bit taken away there. This is one of the administrative problems I pointed out that we have. We try to delegate as much responsibility to the laboratory director as we can and at the same time appropriate authority to go with it. If he has authority when things go wrong we know where to place the blame. Right now it is very difficult to place the blame because many times it pervades the whole process.

Mr. DADDARIO. Keith Glennan, who is now president of the Associated Universities, has said the Federal laboratories should compete