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UNIVERSITY OF CALIFORNIA
LOS ALAMOS SCIENTIFIC LABORATORY
(CONTRACT W-7405-ENG-36)
P. O. Box 1663
Los Alamos, New Mexico 87544

IN REPLY
REFER TO: MP-DO

22 May 1974

mes.200

Dr. Richard P. Feynman
California Institute of Technology
Pasadena, CA 91109

Dear Dick:

It was the greatest pleasure to see you at Los Alamos and to have the occasion to show you our facility.

I don't blame you for not believing that we designed an accelerator to accommodate an experimental program, rather than the other way around. It was only after you left that I remembered that there is some proof that this happened. It is in the attached documents.

I did not quite have the courage to tell you that the original thrust for a pion therapy capability developed because [redacted] died of cancer in 1960. I spent considerable time studying his case and came across a remark by Fermi that negative pions would be the ideal therapeutic radiation. This led me to calculate the intensity required. I arrived at 1 mA giving 100 rad/min, which is nearly perfect. We will not have quite 1 mA at the biomedical target, but the cross sections are higher than I had assumed. All this goes to show that if you are lucky you don't have to be smart.

It would be great to see you here this summer.

Sincerely,

Louis

Louis Rosen
Director, LAMPF

LR/mr

Enc. Origins and History of the
Los Alamos Meson Physics Facility
Possibilities and Advantages of Using
Negative Pions in Radiotherapy
A Proposal for a High-Flux Meson Facility
(the first four chapters)