

TOP SECRET

LOS ALAMOS SCIENTIFIC LABORATORY  
UNIVERSITY OF CALIFORNIA  
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OFFICE MEMORANDUM

712617

TO : M. C. Kligerman, ADRT  
L. Rosen, MP-DO  
G. L. Voelz, H-DO

DATE: August 21, 1972

FROM : H. M. Agnew

SUBJECT: GUIDELINES FOR RESPONSIBILITIES ON THE PION RADIOTHERAPY PROGRAM

SYMBOL : DIR

There is attached for your consideration an admittedly skeletonized version of an administrative modus operandi which I think is necessary for carrying out the pion radiotherapy program effectively. It seems to me that there are not many alternative ways of doing this job, but I would be glad to hear from you individually or collectively in this matter.

Although there have been clear indications that we would have to firm up the channels of responsibility in this area, the immediate and urgent stimulus comes from the National Cancer Institute as represented in the attached letter.

*H. M. Agnew*  
H. M. Agnew  
Director

Attachments

cc: R. E. Schreiber, w/attachments  
R. F. Taschek, w/attachments

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The rapidly maturing program of work which will continue through the clinical trials for pion therapy project involves an interaction amongst the University of New Mexico, H Division, and MP Division people. In the interest of optimizing this interaction, the areas of jurisdiction and the important interfaces are discussed below with a first-order approximation to delineation of lines of authority. The primary concern of this analysis is with the above-named programmatic objective since it is expected that it will assume both top priority and the major portion of this beam line time.

There are four components in this program as we see it:

1) The complete radiotherapy activity involving humans and utilizing LAMPF.

This activity is the complete responsibility of Dr. M. C. Kligerman, acting in his capacity as Professor and Director of the Cancer Center of the University of New Mexico Medical School and Assistant Director for Radiation Therapy of the LASL.

2) The pion beam channel, essentially down to the region of the biological targets.

The responsibility for the electrical and mechanical design of the beam channel and its construction and engineering is lodged with Dr. Louis Rosen, the MP Division Leader. However, the initial requirements specifying pion beam properties, backgrounds, irradiation schedules, etc., related to biological targets of the therapy project shall be

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defined by Dr. Kligerman. The feasibility and practicality of these requirements shall be resolved between Dr. Rosen and Dr. Kligerman. Unresolved difficulties shall be referred to the Director of the LASL.

3) The biological sciences area.

Responsibility for the execution of activities in this area to be conducted at the LASL is lodged in H Division. These activities are those which utilize facilities, animals and personnel normally housed in HRL Building. However, the specific requirements of this effort which derive from the planned programmatic human radiotherapy activity must be designated by Dr. Kligerman. He will be responsible for monitoring the adequacy of this support and its progress.

LASL cellular and animal radiobiology research programs at LAMPF which are responsive to research interests other than in support of the programmatic human clinical trials, will be conducted wholly under the control of H Division. Scheduling and priorities of such programs will adjust to the requirements of the clinical trials effort and will be subject in general to review of the PAC.

4) The biological target area.

Responsibility for this interface region between human pion therapy and the pion beam line will be delegated to a professional Medical Physicist reporting to Dr. Kligerman. He will acquire his direct programmatic instructions from and report their discharge back to Dr. Kligerman.

The medical physicist will be concerned with actually directing work on basic dosimetry research having direct relevance to the planned

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clinical trials. His responsibilities will be concerned with the use of solid and liquid phantoms, boluses, the electronic and mechanical instrumentation associated with all the activities relevant to human irradiation in this biological target area, with determining requirements for beam characteristics such as shape, distribution, density, purity, background composition, etc., with describing the requirements for patient logistics, scheduling and computerization of operations wherever desirable and feasible.

The Medical Physicist will also monitor the general course of those cellular and animal biology experiments and programs pertinent to the programmatic clinical trials effort as specified by Dr. Kligerman and being conducted primarily by or in collaboration with the Los Alamos Scientific Laboratory Group H-4 under Dr. C. Richmond.

An important responsibility of the Medical Physicist will be to schedule and direct the work of the beam line operators; since the exposure of biological targets, particularly humans, may be severely circumscribed. This staff will have to be totally responsive to the requirements of the treatment planner.

It should be clear from the above general description of the problems in the biological target area that all individuals involved in the operation will have to work toward establishing a flexible and responsive relationship to insure that the requirements leading to the successful coordination of clinical trials can be accomplished as rapidly as possible. In particular since Dr. Kligerman has the overall responsibility for the trials all involved must be as responsive to his requests as time and resources will allow.

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