

DOCUMENT SOURCE	
Lawrence Berkeley Laboratory	
Archives and Records Office	
Biology & Medicine Division	
Donner Laboratory - Scraps	
Records Series Title	Papers - Dr. John Lawrence
Accession No.	434-92-0277
File Code No.	19-14-6
Carton No.	(2)
Folder No.	Nuclear Medicine
Notes	
Found By	Karen Holmes
Dates	

721574

BEST COPY AVAILABLE

UNIVERSITY OF CALIFORNIA

January 11, 1945

DEPARTMENT OF PHYSICS
BERKELEY 4, CALIFORNIAPresident Robert G. Sproul
Administration BuildingCovering Letter, 1945-46 Budget
Department of Physics
Division of Medical Physics

The Regents of the University of California, at the meeting held on August 25, 1944, approved your recommendation that a Division of Medical Physics, Department of Physics (Berkeley) be established, effective July 1, 1945, according to Mr. Underhill's letter to me, dated August 26, 1944.

Such a Division of Medical Physics was recommended in a report of a sub-committee of the Medical School, dated May 10, 1944, based upon recommendations made in letters to you from Dr. E. O. Lawrence and myself, both dated January 17, 1944, and from Dr. John Lawrence, dated January 18, 1944.

In the estimates for the 1945-47 biennium budget, submitted on July 31, 1944, in accordance with your letter to me, dated July 19, 1944, the total budget for the Division of Medical Physics, for 1945-46, was estimated at \$11,350. The enclosed budget recommendations agree with this total. The details are as follows.

The salary of Dr. John E. Lawrence has hitherto been included in the budget of the Medical School. But during the current year only \$600 is actually charged to the Medical School. The remainder of the \$4500 is being paid by the war project directed by Dr. Lawrence (under Office of Emergency Management, Committee on Medical Research). The contract for this project terminates on June 30, 1945, and while it may possibly be renewed, or a new project started, Dr. Lawrence has no assurance of this. Hence his entire salary is now entered on the budget of the Division of Medical Physics. We believe that this arrangement, which was recommended by Dr. Ernest Lawrence in his original letter to you, is agreeable to Dean Smyth, although by accident the \$600 now in the budget of the Medical School appears again in the 1945-46 budget recommendations already in your hands. If my present recommendation is approved, this item of \$600 should of course be removed from the Medical School budget. (Actually that item should have been increased to \$4500, or should have been removed entirely.)

Precisely similar remarks apply also to the salary of Dr. J. G. Hamilton, for which an item of \$600 now appears in the budget recommendations of the Medical School, for 1945-46.

I am also recommending a change of title for Dr. J. E. Lawrence, from Assistant Professor to Associate Professor. This change of title does not involve any budgetary change, and I will very shortly make the usual separate recommendation on this matter, accompanied by supporting evidence.

In the case of Dr. J. G. Hamilton, who is also to be transferred from the Medical School to the Division of Medical Physics, I am recommending an

1157707

DOCUMENT SOURCE	
Lawrence Berkeley Laboratory	
Archives and Records Office	
Physics & Medicine Division	
Records Series Title <u>Donor Laboratory - Scruticals</u>	
<u>Papers - Dr. John Lawrence</u>	
Accession No.	<u>434-92-0277</u>
File Code No.	<u>14-14-6</u>
Carton No.	<u>2</u>
Folder No.	<u>Nuclear Medicine</u>
Notes	
Found By	<u>Karen Holmes</u>
Dates	

COPY

President Robert G. Sproul

-2-

January 11, 1945

increase of salary from \$3600 to \$3900. May I interject at this point that all recommendations concerning the Division of Medical Physics are being made -- and will be made -- with the approval of Dr. John Lawrence, after detailed consultation, and with the approval also of Dr. Ernest Lawrence.

At my request, Dr. John Lawrence prepared the attached covering remarks on Dr. Hamilton, including a bibliography. I should like to add my personal endorsement to these remarks. Because my own son happens to be employed on a war project in the Crocker Laboratory, under Dr. Hamilton, I have had an unusual opportunity to obtain information regarding Dr. Hamilton and his work. There is no question but that everyone working with him holds him in the highest esteem. For a medical doctor he has a remarkable knowledge of physics and of the construction and operation of the cyclotron. His sympathy for fundamental scientific research arises in part from his undergraduate training in chemistry. He is now one of those rare individuals trained and experienced in both medicine and physical science who are needed to carry on work in the very new field of medical physics. The present recommended increase in salary is richly deserved, and Dr. Hamilton should be promoted as rapidly as consistent with university policy.

The two additional members proposed for the staff of the Division of Medical Physics are Dr. Cornelius A. Tobias and Dr. Hardin B. Jones. Such a regular staff of four members was envisaged in the report of the sub-committee, dated May 10, 1944, except that Dr. Abersold (who now has an important position elsewhere) was mentioned in place of Dr. Jones.

Both of these men (Dr. Tobias and Dr. Jones) are now working in the Crocker Laboratory, under Dr. John Lawrence and Dr. Hamilton, but the salaries of both are being paid from the funds of the present war contract. As stated in the discussion of Dr. John Lawrence, this contract will presumably terminate on June 30, 1945. There is, however, a grant of \$50,000 from the Columbia Foundation of San Francisco to the Radiation Laboratory, for work in medical physics. This grant is mentioned in the January 17, 1944 letter of Dr. Ernest Lawrence to you. It was to cover five years' work and still has a year to run. Dr. John Lawrence hopes to be able to pay the salary of Dr. Jones from the unexpended balance in this grant, but the salary of Dr. Tobias is being included in the regular budget of the Division of Medical Physics.

Dr. Tobias is one of our own Ph.D. products in the department of physics. Like Dr. Abersold, he early became interested in the biological and medical aspects of cyclotron work, although his Ph.D. thesis was on a topic in pure physics. In that investigation, using the 60" cyclotron, he obtained carbon nuclei completely stripped of all surrounding electrons. They emerged from the cyclotron with an energy of 96 million electron-volts, the highest energy particles ever produced by man. I am enclosing a more detailed statement regarding Dr. Tobias, written by Dr. John Lawrence. Dr. Tobias completed his work for the Ph.D. in August 1942 -- two and one-half years ago. Since this is a new position, we are, however, recommending a salary of only \$2200, much less than Dr. Tobias is now getting from the war contract. It would be quite agreeable to Dr. Lawrence and myself if Dr. Tobias were started on a somewhat higher salary, such as \$2400.

DOCUMENT SOURCE	
Lawrence Berkeley Laboratory	
Archives and Records Office	
Biology & Medicine Division	
Donner Laboratory - Scientific	
Records Series Title	Papers - Dr. John Lawrence
Accession No.	434-92-0277
File Code No.	19-14-6
Carton No.	(2)
Folder No.	Nuclear Medicine
Notes	
Found By	Karen Holmes
Dates	

COPY

President Robert G. Sproul

-3-

January 11, 1945

The matter of salaries in the Division of Medical Physics is still somewhat unclear in my mind. Such men normally work the year around, except for a few weeks' vacation, and their research activities, at present, involve far more time than teaching activities. The salaries should therefore be larger, other things being equal, than those paid for nine-months service in the regular academic departments of the University. This fact is already reflected in the salaries of Dr. Lawrence and Dr. Hamilton, formerly paid by the Medical School. Thus it may well be that the minimum salary of an instructor in medical physics, employed essentially on a year round basis, should be \$2200 or \$2400, rather than \$2000. In that case the salary of Dr. Tobias, as a result of his previous experience, should be at least \$200 above the minimum. I should be glad to be informed on this point. All of the preceding remarks are of course independent of any general adjustment that may be made in the salary scale of the University.

As already noted, the salary of Dr. Jones will be paid, at least during 1945-46, from outside funds. Since, however, he is to hold a continuing position in the Division of Medical Physics, I enclose remarks on him, and a bibliography, prepared by Dr. John Lawrence. The only personal word I can add regarding Dr. Jones is that he gave an invited paper at the Stanford meeting of the American Physical Society, in the summer of 1943. In this paper he described some of the biological and medical work being done with the medical cyclotron, in the course of which he performed a surgical operation on a mouse. I suspect that it was the first time in history that a surgical operation had ever been performed before the American Physical Society. The paper was beautifully given and was heard with very great interest. I mention this merely as an illustration of the very important and profitable cooperation between physics and medicine that may exist, and does exist in the proposed Division of Medical Physics.

The only other item in the budget is that of one teaching assistant at \$750. This man will assist in the course, Physics 125, now given in Medical Physics, and in any other teaching courses that may be started. He will also assist in the research laboratory course, Physics 199, now being given. The assistant helps to prepare demonstrations for the lectures in Physics 125, and helps in supervising the laboratory experiments in the research course. He will, like other teaching assistants, also be taking courses and working toward a higher degree.

All other funds -- for Assistance, Expense and Equipment, etc. -- are now being paid from outside funds and for the present will continue to be so paid.

Respectfully submitted,

Raymond T. Buge

Chairman