SUBJECT TO APPROVAL AT NEXT MEETING

NOT FOR PUBLICATION

NATIONAL RESEARCH COUNCIL

Division of Medical Sciences

MINUTES OF THE COMMITTEE ON VETERANS MEDICAL PROBLEMS

25th Meeting - 5 December 1952

ATTENDANCE:

Committee:	Dr. Wilburt C. Davison, Chairman Drs. J. E. Finesinger, Perin H. Long, E. R. Long, Herbert H. Marks, H. Houston Merritt, and J. Roscoe Miller.
	Absent: Drs. M. E. DeBakey, A. LeRoy Johnson, and A McGehee Harvey.
Veterans Administration:	Drs. G. M. Lyon, A. F. Abt, John B. Barnwell, J. L. Holsopple, R. L. Jenkins, A. N. Moseley, Jr., John C. Nunemaker, H. F. Weiler and Marjorie P. Wilson, VA Central Office; Dr. J. F. Rose, Boston, Massachusetts.
National Research Council:	Dr. M. C. Winternitz, Chairman, Division of Medical Sciences; Drs. R. Keith Cannan, G. W. Beebe, Stella Deignan, Theodore S. Moise, F. D. Lawrason and Gerard Turino. Mr. Seymour Jablon and Miss Esther Miller.
Others:	Cdr. E. P. McLarney, Bureau of Medicine and Surgery, Department of the Navy.

I. ACTION ON MINUTES OF PREVIOUS MEETING:

The minutes of the previous meeting were approved without change.

II. REPORTS FROM THE VETERANS ADMINISTRATION:

A. VA Program of Medical Research

Dr. Lyon described the objectives, organization, and administration of the VA Medical Research Program (See Appendix II), in order that the Committee, in its advisory capacity to the VA, might have a clear understanding of the program and its various parts. Research is considered an essential element in providing the veteran patient with the best possible medical treatment and hospital care. The specific aims are (a) to attract and retain qualified personnel through the conduct of research within VA hospitals, (b) to permit full-time staff personnel to improve their professional proficiency

APPENDIX I

I. New applications approved by the Committee on Veterans Medical Problems on 5 December 1952 and recommended to the Veterans Administration.

Project #284

Responsible investigator: BROIDA, H. P.
Institution: National Bureau of Standards
Title: "Determination of Stable Isotope Concentration in Human Blood and Tissues"

Amount Requested: $11,350

Approved by: Panel on Physics of the Committee on Growth
Committee on Veterans Medical Problems

Rating: 2.0 $11,350

II. New applications disapproved by the Committee on Veterans Medical Problems on 5 December 1952.

Project #282

Responsible investigator: NELSON, JACK
Institution: Bellevue Hospital, New York
Title: "Treatment of Osteoporotic Disease with Compounds of Fluorine"

Amount Requested: $8,111

Divided Vote: Subcommittee on the Skeletal System

Disapproved by: Committee on Medicine
Committee on Veterans Medical Problems

At the June, 1952, meeting of the American Medical Association, there were fifteen scientific exhibits representing VA research activities. These were planned and developed by Mr. Eddy and his staff.

RESEARCH DIVISION

The Medical Research Program is administered through the Research Division, Research and Education Service.

VA Technical Bulletin, TB 10A-152, "Medical Research Program", was prepared and published on August 5, 1948, to assist in the administration and interpretation of the VA Medical Research Program in its various aspects exclusive of the Prosthetics Research Program. It has served as a guide for orientation and assistance to those interested in, or concerned with, the various phases of the Research Program. This Technical Bulletin is currently in the process of being revised and should be issued within the next few months.

Semi-annual progress reports are submitted by VA hospitals engaged in the conduct of research. These reports are invaluable in that they provide information required within the Research Division to reflect accomplishments within the Research Program and in developing the preliminary estimates of budget needs for the future.

Within the Research Division, a file of publications by VA personnel is maintained together with suitable files and cross files by authors and subjects. These files are consulted almost daily by representatives of the other services within Central Office, or required in the answering of requests and correspondence to the division. In the maintenance of these files, the Research Division has the assistance of the Medical Records Library Division, Central Office. One copy of each article published by VA personnel and submitted to Central Office is filed in the VA General Medical and Reference Library.

The Research Division is assisted in an advisory capacity in matters of a scientific character by the Committee on Veterans Medical Problems, Division of Medical Sciences, National Research Council, National Academy of Sciences. This Committee advises with respect to the development of over-all policies and periodically reviews and advises with respect to the various research programs administered by the Research Division. This Committee also reviews and makes recommendations as to all applications for contractual research projects except those related to prosthetic appliances, which are covered under the Prosthetic Research Program. To provide for necessary expenditures in connection with this advisory service, the Veterans Administration contracts with the National Academy of Sciences at an annual cost of approximately $85,000. This does not include funds for individual contractual research projects. After approval by this Committee, contractual research projects are administered within Contractual and Project Research Section, Research Division.

The Research Division is assisted in a service capacity:

(a) By the Committee on Veterans Medical Problems, in the administration and operation of a statistical analysis program (and agency) in connection with the "follow-up" studies of certain service-connected disabilities and "problems". This is a long-range study of both medical

and economic importance to the Veterans Administration. Many aspects of this activity, begun in 1947, should be completed by 1955. A great deal of data has been obtained from the study of veteran patients. It has been, or is being, collected and assembled. Much of it has already been subjected to statistical analysis and we are now awaiting the preparation of the scientific reports resulting from these studies. A considerable amount of data remains yet to be subjected to statistical analysis. A major contribution of this phase of the VA Medical Research Program has been that a valuable "pilot" experience has already been gained in the ways and means of approaching problems of this nature. This is particularly true with respect to the pilot study of the record "follow-up" projects.

Data has been collected in a wide range of medical problems encountered in, or closely related to, the problems of veterans. Among these are: psychoneurosis, peripheral nerve injury, arterial injury, tuberculin tests, hepatitis, testicular tumors, x-rays of chests of inductees, sarcoidosis, rheumatic fever, irradiation of testicular tumors, fractures of carpal scaphoid bone, wounds of the hand, schizophrenia, "cold injuries", Hodgkin's disease, Buerger's disease, health of former prisoners of war, etc. The statistical agency has also cooperated in a study of tolerance in ground combat, a project financed by the U. S. Army. For the services promoted by this activity, the Veterans Administration contracts with the National Academy of Sciences at an annual cost of approximately $185,000. Peak load has been passed, and a gradual reduction of VA commitments in this activity may be anticipated.

(b) By the Medical Sciences Information Exchange, Division of Medical Sciences, National Research Council, in the exchange of information relative to research activities. The Veterans Administration participates with five other governmental agencies in the financial support and technical activities of this Exchange. The participating agencies are, Department of Army, Navy, Air Force, the Atomic Energy Commission, the Public Health Service, and the Veterans Administration. The Exchange constitutes a clearing house for information on research activities being conducted in the medical and allied health fields with the support of government agencies (and otherwise). Responsible investigators within the VA Medical Research Program contribute summaries of their research activities to this Exchange and on request to the Exchange, receive from it information and summaries of investigative work, covering such subject matter as the investigator may request. To support VA share in this activity, Veterans Administration contracts annually with National Academy of Sciences at an annual cost of $20,000.

CONTRACTUAL RESEARCH PROGRAM

The Contractual Research Program is administered within the Contractual and Project Research Section.

The Contractual Research Program is intended to obtain information within the medical and allied health fields which, for one reason or another, the Veterans Administration may require and which can be more advantageously, or more economically obtained through contractual research projects in universities or research institutions rather than in facilities of the Veterans Administration. In some instances, the Veterans Administration may require information so obtained in connection with the medical treatment and hospital care of veteran patients. In other instances, it may be required for use in connection with the long-range planning of VA medical problems or in contributing to a better understanding of disabilities so that just and sound bases, or criteria, for evaluating alleged disability claims can be established and applied This is required not only in the interest of the veteran but as well in the national interest. In general, information of this character is more readily derived from "applied" research rather than "basic" research. As a consequence most, but not all, of the contractual research projects supported by the Veterans Administration are in the nature of "applied" research.

Applications for approval of contractual research projects are prepared by individuals (principal investigators) and submitted to the Assistant Chief Medical Director for Research and Education. In some instances, they are prepared at the specific request of this Assistant Chief Medical Director. This is usually the case when the Veterans Administration recognizes a particular need that can best be met in this manner.

When the application for approval of a contractual research project is received in the office of the Assistant Chief Medical Director for Research and Education, it is then referred to the service, or services, particularly concerned and thereafter with the pertinent comments of representatives of the service, or services, is referred to the Committee on Veterans Medical Problems for their consideration and recommendations. When the project application is approved by this Committee, and when funds are available for support of the project, the Veterans Administration notifies the "principal investigator" and his institution by means of a "letter of intent" to negotiate the contract. Then the Service Contracts Section, Supply Service, Central Office Veterans Administration, negotiates a reimbursable type contract with the institution in which the investigation is to be carried out under the direction of the "principal investigator". An important feature of the contract deals with the custody and ownership of such equipment and supplies as may be in possession of the contracting institution at the time the contract is terminated. Strict government regulations are applicable to this situation.

The scope of the subject matter covered within the Contractual Research Program in broad terms only has been indicated under the section of this presentation under title, "General Statement of Objectives and Principles". A wide variety of interests has been included.

Prior to January 1, 1953, 155 contractual research projects had been negotiated exclusive of, (a) those negotiated directly with the National Academy of Sciences, and (b) those coming within the scope of the Prosthetics Research Program. There were 16 of the latter.

Highest priority is now given to matters involving service-connected disabilities and associated problems.

The results of the research activities of the investigators are published in the professional, scientific, and technical journals so that information so derived can be made available not only to other VA personnel but to the interested professions as well. In this manner the public, at large, may benefit from the research achievements within the VA Research Program. A surprisingly large number of these publications indicate a join authorship in which one of the authors is a full-time employee of the Veterans Administration and the other is a member of the faculty of the medical school or university associated with the VA hospital. This is but one of the many evidences of a community of interest that contributes so much to the Medical Program of the Veterans Administration.

There have, unfortunately, been times when some of our associates have been a bit neglectful of giving us proper credit for work they have don in close association with our research workers. While we are not pleased wh this occurs we do have the satisfaction of knowing that we have contributed their success through our cooperation and participation and that they have inadvertently paid us a compliment, even though not widely advertised, by thinking so highly of our contribution that they would like to "hog" the credit for it to themselves.

In general, we encounter much the same problems of human relations that characterize comparable situations within medical schools and university hospitals. Fortunately, we do have a minimum number of instances wherein a senior person may try to get his name on all publications within his service (in a medical service or department), regardless of the validity of his contribution thereto. The Research Committees serve an important and beneficial influence in moderating these abuses which, if not moderated, can have a most disturbing influence on the attitudes and the morale of the other research workers. I mention this only to point out that we are concerned with many of the same problems with which deans of medical schools and heads of departments in universities are concerned. Sometimes these problems can be most disconcerting to the responsible research administrator. Within the VA Medical Research Program we are rather fortunate because there has been displayed, as a general rule, an exemplary spirit of fairness and sportsmanship-like attitudes in such matters.

PART II

VA RADIOISOTOPE PROGRAM

HISTORICAL

During the Fall of 1946 and the Spring of 1947, General Paul Hawley, who was then Chief Medical Director, became deeply concerned about the problems that atomic energy might create for the Veterans Administration due to the fact that the Armed Services were so actively engaged in matters of atomic energy. After consultation with the representatives of the Manhattan Engineer District, General Hawley convened a conference within his office to consider this matter. The conference, held on August 7, 1947, was attended by Lieutenant General Lesl R. Groves, USA, Commanding General, Manhattan Engineer District; Colonel James Cooney, MC, USA, Chief Medical Officer, Manhattan Engineer District,; Major General Raymond Bliss, USA, Surgeon General, U. S. Army; Rear Admiral W. L. Willcutts, MC, USN, Deputy Surgeon General, US Navy; Major General Malcom Grow, Air Surgeon, U.S.A.F.,; Surgeon General Leonard Scheele, U. S. Public Health Service; General Hawley and myself. General Groves described, in general,

characteristics that these problems might include and then stressed the importance of having personnel trained, qualified and equipped with the facilities required to meet them.

General Hawley then requested Doctors Stafford Warren, Hymer L. Friedell, Shields Warren, Hugh Morgan, and Perrin Long to constitute a committee to advise him on matters of atomic medicine and to make recommendations as to what steps should next be taken to meet the problems discussed at the August 7th conference.

On September 5, 1947, this committee held its first meeting. The Veterans Administration was represented by General Hawley and myself. At this time the objectives of the Atomic Medicine Program were formulated and the broad aspects of a scheme for establishing a radioisotope program to support the more inclusive Atomic Medicine Program were drafted. The advisory committee was given the name, "Central Advisory Committee on Radioisotopes", as it was not desired at this time to publicize the fact that the Veterans Administration might have any problems in connection with atomic medicine especially the fact that there might be problems in connection with alleged service-connected disability claims. The committee recommended, (a) the establishment of an Atomic Medicine Division within the Department of Medicine and Surgery and the appointment of a Special Assistant for Atomic Medicine to head up the Division and to represent the Chief Medical Director in the handling of atomic medicine matters, and (b) the establishment of a Radioisotope Section to implement a Radioisotope Program. It further recommended that, for the time being, the existence of an Atomic Medicine Division be classified as "confidential" and that publicity be given instead to the existence of a Radioisotope Program administered through the Radioisotope Section. General Hawley took affirmative actions on these recommendations and it was in the manner described that the Radioisotope Program was initiated in the Fall of 1947.

The unique qualifications of the members of the Central Advisory Committee on Radioisotopes merit consideration. Doctor Stafford Warren, now Dean, Medical School, University of California, Los Angeles, was formerly Chief Medical Officer, Manhattan Engineer District (1943-1946). Doctor Hymer Friedell, now Professor of Radiology, Western Reserve Medical School, was Deputy Chief Medical Officer, Manhattan Engineer District (1943-1946). Doctor Shields Warren, now Professor of Pathology, Harvard Medical School, was Director, Division of Medicine and Biology, Atomic Energy Commission (1947-1952). Each of these individuals had participated in one or more atomic bomb tests in positions of senior responsibility. Doctors Morgan and Long have, for many years, been leaders not only in academic and civilian medicine but in military medicine as well.

The Radioisotope Program was initiated in the Fall of 1947. Most of that Fall was spent in planning. The first radioisotope laboratory was opened at VA Hospital, Van Nuys, Calif., in February, 1948, under the direction of Dr. M. E. Morton, one of the pioneers in research with radioisotopes at the University of California. This was but a few months after radioisotopes became generally available for medical purposes by the Atomic Energy Commission.

GENERAL STATEMENT OF OBJECTIVES AND PRINCIPLES

A major objective of the Radioisotope Program was, from the very beginning, to provide the Veterans Administration with qualified professional, scientific, and technical personnel, as well as the specialized facilities, required, (a) to meet the varied and unique problems of atomic energy that

might be of concern to the Veterans Administration, particularly in respect to the problems associated with the study and analysis of alleged service-connected disability claims, and (b) in connection with certain responsibilities that the Veterans Administration may have in civil defense. Much of the support for the Radioisotope Program has been predicated on, and justified by, the implications of this major objective. In this respect, it differs somewhat from other activities carried on within the VA Medical Research Program and supported from research funds (Program 8200).

The specific objective of the Radioisotope Program has been, and is, to employ radioisotopes within selected hospitals of the Veterans Administration, (a) in medical research, (b) in clinical diagnosis, and (c) in the medical treatment of veteran patients. Here again the Radioisotope Program differs somewhat from other activities supported from research funds in that it includes activities involving clinical diagnosis and treatment as well as research. As a matter of fact, in the larger and more active Radioisotope Units perhaps as much as one-half of their energies are expended in clinical diagnosis and treatment, particularly the former.

Radioisotope laboratories are established only in VA hospitals having affiliation with medical schools.

The Atomic Energy Commission has established certain criteria and standards of health protection, not only for the patients receiving radioisotopes, but as well for individuals who work with, or might be inadvertently exposed to, radioisotopes. These requirements are strictly observed within the VA Radioisotope Program.

The Veterans Administration, for reasons unique to its needs and responsibilities, has established certain requirements, both technical and administrative, which are rigorously observed within the Radioisotope Program.

Certain policies recommended by the Central Advisory Committee on Radioisotopes and established by the Chief Medical Director have been established and compliance therewith is a firm requirement within all VA hospitals where radioisotopes are employed. These include:

a. medically sound policies and practices with respect to all human applications of radioisotopes

b. sound policies and practices with respect to radiological safety, including appropriate technical and administrative requirements and a radiological safety plan formally drawn up and approved by the Radioisotope Committee and the Chief, Radioisotope Section

c. sound, conservative policies and practices with respect to both publicity and public relations,

d. supervision of the radioisotope program within an individual VA hospital by a Radioisotope Committee representing the Deans Committee affiliated with that hospital.

As a statement of principle, it is maintained that a conservative stand should be taken with respect to the position of radioisotopes in medicine within all VA hospitals in which radioisotopes are employed. This is particularly true in respect to treatment. The situation is very much more encouraging in clinical diagnosis where we have reason for greater optimism. It is generally believed, however, that the main contribution that radioisotopes can make to medical care will be as a tool in biological and medical research.

Within the VA Radioisotope Program, radioisotopes may be, and are, employed in basic research as well as in medical research and clinical investigations.

The Radioisotope Program complements but does not duplicate, or take the place of, the program conducted by the Atomic Energy Commission. This agency has no means whereby it could provide either the research or clinical services involving the use of radioisotopes that are required within the Veterans Administration, nor does any other agency of government.

The Radioisotope Program, as an integral part of the over-all Medical Research Program of the Veterans Administration, augments and extends the accomplishments of the research program within VA hospitals. It is closely integrated with the medical research programs within these hospitals. Insofar as practicable, radioisotope laboratories have been placed in close proximity to the medical research laboratories within an individual hospital.

Because of the unique requirements associated with the employment of radioisotopes within hospitals, particularly in a large hospital program such as that of the Veterans Administration, a much greater degree of central control is needed than is required in the other medical research or clinical investigation programs.

Radioisotopes may be used only in VA hospitals for which the Chief Medical Director, upon recommendation of the Central Advisory Committee on Radioisotopes, has specifically authorized the establishment of a Radioisotope Unit.

Within a VA hospital in which there has been established a radioisotope unit, there is freedom of use of radioisotopes provided, (a) applicable requirements of the Atomic Energy Commission and of the Veterans Administration are observed, and (b) such use has previously been approved by the Radioisotope Committee appointed to represent the Deans Committee in the supervision of the Radioisotope Program within that particular VA hospital.

In general, the same policies and principles pertaining to the Medical Research Program, as described earlier in this presentation, are applicable to research involving the use of radioisotopes.

During the first four years of the program, representatives of all VA radioisotope units met twice yearly in a working conference intended to provide exchange of information concerning, (a) administrative matters, (b) scientific and technical matters unique to the employment of radioisotopes, (c) the planning, organization, and conduct of research with radioisotopes, and (d) the results of research work and clinical investigations in which radioisotopes were used.

ORGANIZATION AND ADMINISTRATION WITHIN CENTRAL OFFICE

GENERAL STATMENT

The Special Assistant for Atomic Medicine serves as Chief, Atomic Medicine Division. He is responsible for the over-all administration of the VA Radioisotope Program and for its coordination within the professional services.

RADIOISOTOPE SECTION

The Radioisotope Program is administered through the Radioisotope Section, Atomic Medicine Division, Research and Education Service. The Chief, Radioisotope Section, is responsible for the coordination within Central Office of those matters with which the administrative divisions within a VA hospital are concerned.

The Radioisotope Section is assisted, both in an advisory capacity and in a service capacity, by the Central Advisory Committee on Radioisotopes. The members of this Committee serve as consultants to the Radioisotope Section. Three members also serve as special consultants to the hospital programs within certain regions. These are, (a) Eastern United States, Dr. Shields Warren, (b) Central United States, Dr. Hymer Fridell; and (c) Western United States, Dr. Stafford Warren. Obligations incurred in connection with these services, and those of other special consultants in atomic medicine, amount to $10,000 annually.

The Radioisotope Section provides assistance and support to the Radioisotope Units, (a) in professional, scientific, and technical matters, (b) in administrative matters (personnel, finance, budget, supplies, and equipment, construction, etc.), (c) in program analysis, (d) in dissemination of information gained from semi-annual progress reports submitted by the Radioisotope Units, (e) in serving as a medium for exchange of information, and (f) in providing a wide variety of advisory services.

To assist the VA hospital in initiating and administering a radioisotope program, certain aids have been prepared by the Radioisotope Section and are provided to the Deans Committee and the Manager of the hospital concerned. These include, (a) "Suggestions for Planning and Initiating a Radioisotope Program within a VA Hospital", (b) "Suggestions as to Plan of Organization and Operational Procedures of a Radioisotope Unit within a VA Hospital", (c) "Suggestions as to Supply and Equipment Operations for a Radioisotope Unit", and (d) "List of Initial Supplies and Equipment for Radioisotope Units". These have proven to be most helpful to those concerned with the development and administration of the radioisotope programs within the VA hospitals having radioisotope units.

The Radioisotope Section has also planned, organized, and administered a program designed to train VA personnel to serve as monitors and monitor leaders in the radiological safety aspects of civil defense. To accomplish this, in the summer of 1949, the section also prepared for, and provided to, the VA hospitals a training guide under title, "Training Plan for Course in Radiological Defense (Monitors)". By the summer of 1950 within VA hospitals having Radioisotope Units, more than 400 VA employees, other than physicians, dentists, and nurses, had received the training.

The Radioisotope Section, in 1950, cooperated with the Federal Civil Defense Administration in the preparation of "Health Services and Special Weapons Defense" (AG-11-1).

The Radioisotope Section, in 1951, assisted in the preparation of two manuscripts which were reproduced and widely distributed by the Council on National Emergency Medical Services of the American Medical Association. They were: "Planning and Organizing for Radiological Defense in Civil Defense", and, "Training Plan for Courses in, (a) Medical Aspects of Radiological Defense, (b) Medical Aspects of Atomic Warfare, and (c) Radiological Defense (Monitors)". These were modifications of manuscripts already prepared for use within the Veterans Administration.

RADIOISOTOPE UNIT

The organizational element within the VA hospital concerned with the use of radioisotopes is the Radioisotope Unit. It is under the immediate supervision of a director who is a physician qualified in the use of radioisotopes as well as in the field of clinical medicine and medical research. The director is appointed with the approval of the Chief Medical Director.

The director is assisted in an advisory and a supervisory capacity by the Radioisotope Committee representing the Deans Committee of the hospital. The duties of this committee are:

a. advise the Manager as to policy in regard to radiological safety, public information, and public relations

b. make recommendations as to the qualifications, appointment and employment of professional, scientific, and technical personnel required in the unit, including the director and all consultants to the unit

c. review and, if approved, recommend proposed research activities involving radioisotopes, and proposed clinical uses of radioisotopes, and

d. review, and when appropriate, approve, (1) such papers as may be proposed for publication, and (2) such exhibits as may be proposed for presentation before scientific groups when either involves the use of radioisotopes.

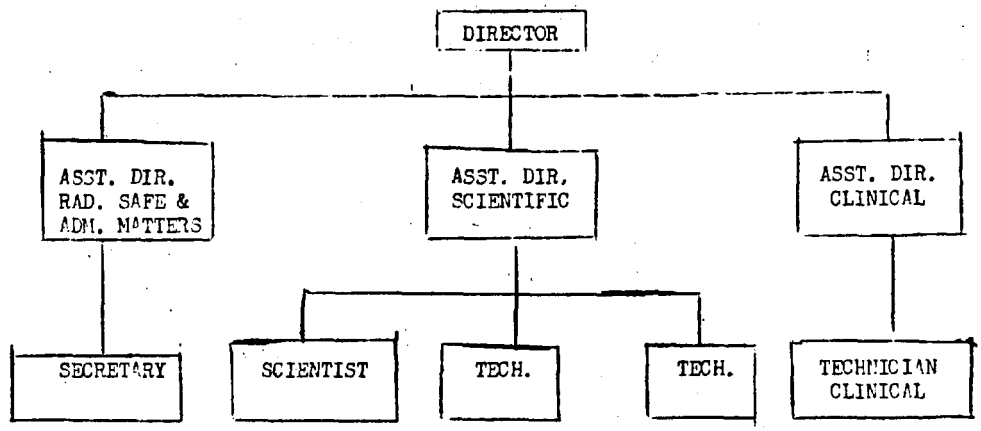
Membership on the Radioisotope Committee is not limited to members of the Deans Committee. Members may not be full-time employees of the Veterans Administration. Usually the members are qualified individuals within the teaching staff of the associated medical schools or universities.

Consultants may be professional, scientific, or technical personnel and need not necessarily be physicians.

Within the VA hospital and laboratories, the director is responsible, (a) for the administration of the Radioisotope Program, (b) for the human application of radioisotopes, and (c) for all radiological safety measures.

The Director is assisted by three principal assistants as indicated in the accompanying organization chart.

As a rule, the Radioisotope Unit is organized in this manner:



The Director and the Assistant Director (Clinical are physicians employed under Department of Medicine and Surgery. They are not paid from reasearch funds (Program 8200). The others are employed under regulations of the Civil Service Commission. They are paid from Research funds (Program 8 Only citizens of the United States may be employed in any of these positions.

Of funds made available for the Radioisotope Units, 80 per cent is utilized for the payment of salaries of the scientists and technical personnel other than physicians, dentists, and nurses, 5 per cent for consultants and 15 per cent for supplies and equipment.

SCOPE

The scope of the Radioisotope Program includes:

a. Employment of radioisotopes in medical research in a great variety of applications in the broad field of medical research. Special attention has been given to study of (a) thyroid function, (b) diseases, and disorders of the thyroid gland, (c) metabolism, (d) cardiac function, (e) peripheral vascular disease, (f) electrolyte balances, (g) blood volume determinations, (h) hemodynamics of cardiovascular system, and (i) etc.

b. Clinical diagnostic procedures have been developed and are employed in a variety of conditions including (a) practical diagnosis of hyperthyroidism and hypothyroidism, (b) the location and diagnosis of metastatic carcinoma of the thyroid, (c) diagnosis and localization of brain tumors, (d) determining pumping efficiency of the heart, (e) peripheral vascular function, (f) blood volume determinations, and (g) skin grafts, etc.

c. Treatment of (a) toxic hyperthyroidism, (b) carcinoma of thyroid and metastases, (c) leukemia, (d) polycythemia vera, (e) carcinoma of the testicle, (f) carcinoma of the prostate, (g) certain tumors (by interstitial infiltration), and (h) basal cell carcinoma of the skin.

OUTSTANDING ACHIEVEMENT

Outstanding technical achievements have been (a) the application of scintillation counters in clinical diagnosis and treatment as well as in medical research, (b) the application of the Texas well counter to medical research uses and (c) the development of the automatic "scanner" for making "scintigram" tracings of the outline of the thyroid gland and of brain tumors.

PART III

VA PROSTHETICS AND SENSORY AIDS RESEARCH PROGRAM

INTRODUCTION

Faced with considerable numbers of individuals who had suffered amputations in active service during World War II, the War Department turned to the National Research Council for assistance in the rehabilitation problems of these individuals. There was established then in 1947 through the National Research Council, a Committee on Artificial Limbs, supported first by the Office of the Surgeon General and later the Veterans Administration, to outline a continuing program of research and development in this field.

The purpose of this program has been to develop improved prosthetic and orthopedic appliances and sensory aids, exclusive of dental prostheses, and includes the practical utilization of these devices by veteran patients. The aim of the program is to conduct research and development of new and improved prosthetic and orthopedic appliances and sensory aids and to afford an opportunity for the testing and fitting of these devices so that the problems of successful utilization may be understood and surmounted. There exists a large number of disabled beneficiaries (most recent estimate - 257,500) who, under federal statutes, will remain permanently entitled to prosthetic and sensory aids and unless the Veterans Administration conducts an active prosthetics research and development program in this field, the interest of veteran individuals who are handicapped and disabled will not be served to the best advantage.

AUTHORITY

Public Law 729, 80th Congress, gives specific authorization for the Prosthetic and Sensory Aids Research Program, and authorizes the appropriation of up to $1,000,000 annually for this purpose.

ORGANIZATION AND ADMINISTRATION

The Prosthetic Research Program is coordinated with other Veterans Administration medical research and is administered as to financial and contractual matters by the Assistant Chief Medical Director for Research and Education. The program is developed, planned, and supervised, however, by the Director, Prosthetic and Sensory Aids Service, Central Office.

CHART 1

RESEARCH OBLIGATIONS

INTRA VA AND CONTRACTUAL

PROGRAM 8200

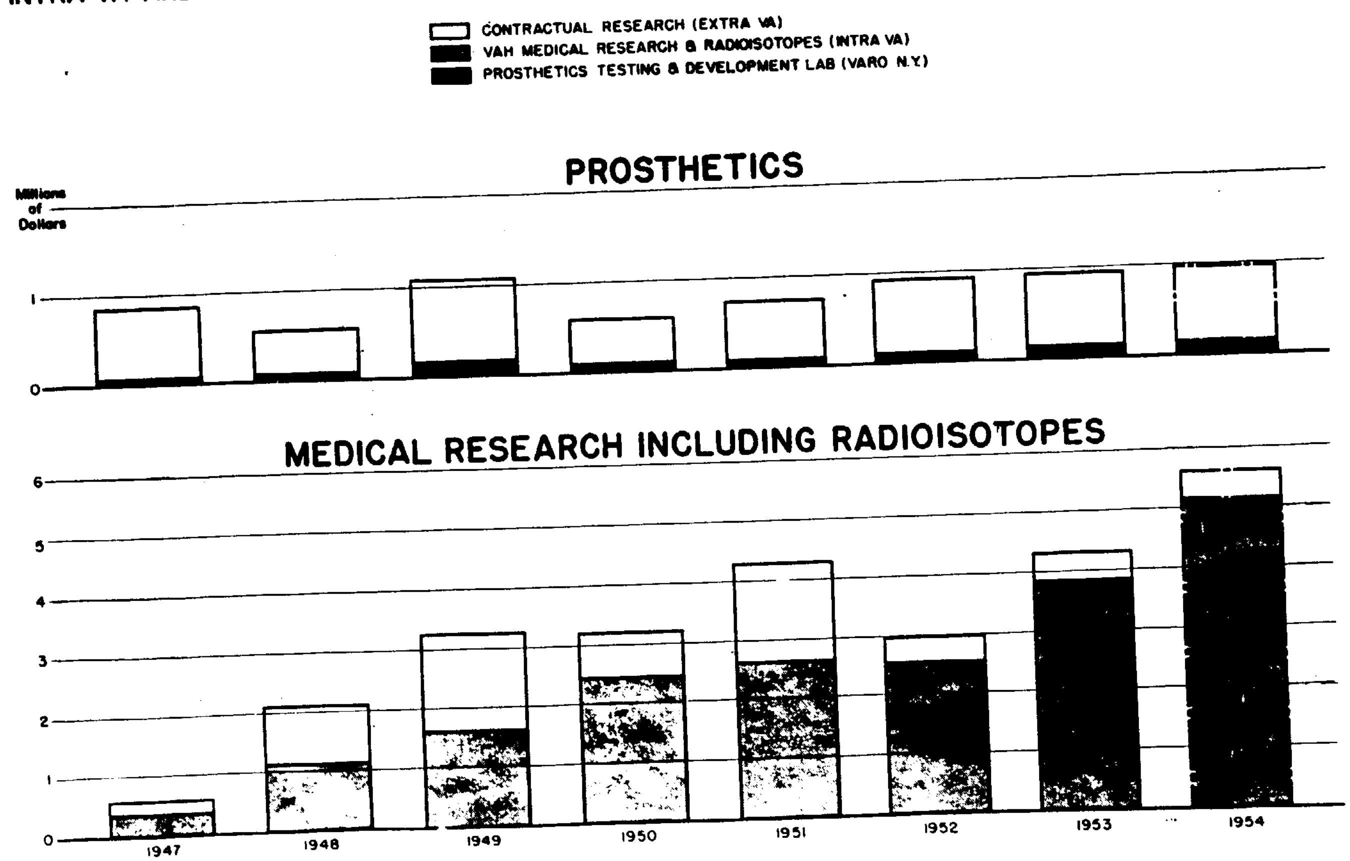
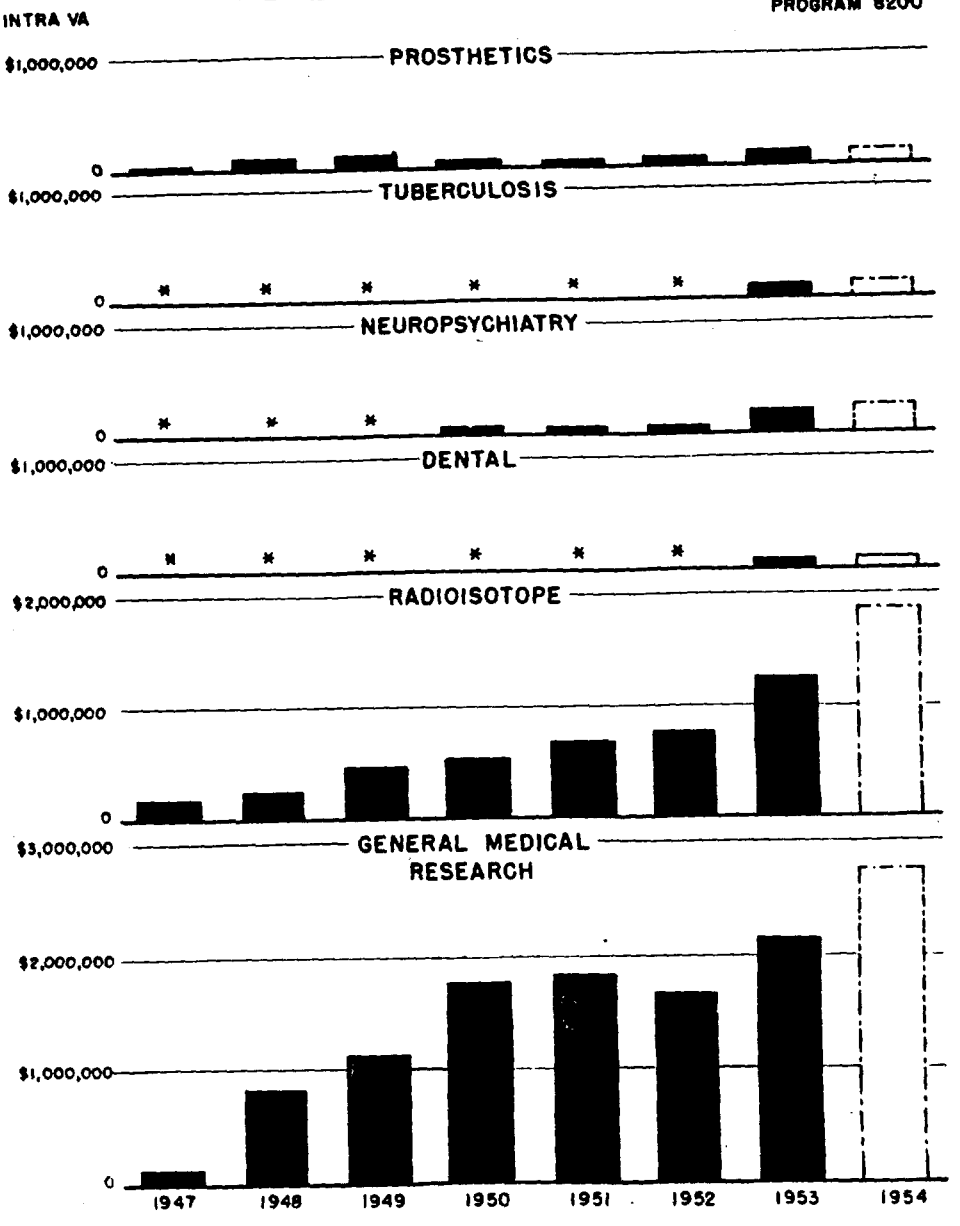


CHART 5

1171469

RESEARCH OBLIGATIONS

PROGRAM 6200



*OBLIGATION DATA NOT AVAILABLE

CHART 7

1171470