Medical Research Council

Half a Century of Medical Research

Volume One: Origins and Policy of
The Medical Research Council (UK)

A. Landsborough Thomson

Half a Century of Medical Research

The Medical Research Council, established in 1920 but in effect inaugurated seven years earlier as the Medical Research Committee, is a prototype among official research organisations. Sir Landsborough Thomson was particularly well qualified for writing its history since he joined the staff of the original Committee in 1919 and as second officer at the Council's headquarters was closely involved in developments for nearly 40 years.

The work is being published in two volumes. This first volume recounts the general history of the Council, particularly the constitutional and administrative aspects of the origins of policy—both the early formulation of administrative principles and the initiation of what later became major developments in the scientific programme. The early chapters chronicle the beginnings of the Council and the predecessor Committee in detail; the later ones discuss broader questions, such as the reasons why particular methods were chosen for the promotion of research, the circumstances in which certain subjects were selected for special support, and the considerations governing the relation between science and administration. Volume Two will deal with the development of the Council's scientific programme (see the back flap).

As Sir Harold Himsworth writes in his introduction to the book, national as well as departmental policy is coming to depend increasingly on the objective quality of the scientific knowledge available, and the organisational pattern of which the research councils are the prototype might find increasing application. This account of the evolution of the Medical Research Council should be valuable not only for those with specialised interests but also in that wider context.

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Volume One

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The Medical Research Council (UK)

A. Landsborough Thomson
(late Second Secretary of the Council)

Medical Research Council
London 1987

NOTE:

The following chapters are an extract from Half a Century of Medical Research Volume One (Chapters 1–6 of 17), first published by the Medical Research Council in 1973 and reprinted in 1987.

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Author's Preface

The subject of this work is a British agency created to promote research in the biomedical field, namely the Medical Research Council. The first volume deals with the history of this body, particularly in its constitutional and administrative aspects. The second volume will deal with the development of its scientific programme.

The period covered is the first half-century of the Council's existence as such, 1920–70, plus the seven years of the predecessor Medical Research Committee, 1913–20. The steps taken to establish that Committee, in 1911–13, are also described, with some retrospect upon still earlier events in the United Kingdom leading up to the recognition of a public responsibility for medical research. Some points relating to 1971 (or even early 1972) that it would have been pedantic to ignore have been inserted during the final stages of preparation for press.

The first six chapters present a continuous chronicle, but limited to the constitutional aspect; otherwise the approach has been analytical, the method being to treat different facets of the subject separately, each for the whole period. No attempt has been made to build the story round outstanding personalities, which would have been invidious and lacking in proper balance. An institution is an organism of which the whole is greater than the sum of its parts; it has a corporate existence to which very many people contribute in different ways and degrees, and it acquires a continuing momentum of its own which transcends individual lives. It is an ideal that anyone may well be proud to serve during his time, but that nobody can claim as his own.

It is a fundamental tenet that science is international and that its advance cannot be described in terms of the contribution made by one country or a particular organisation. A new line of investigation may be opened up here or there, or in different parts of the world simultaneously, when the general state of knowledge is ripe for the particular development. These beginnings depend, firstly, on the ideas of workers in the front line of scientific advance. They depend, secondly, on opportunity—the earlier

training of these workers, their material support and intellectual freedom as investigators, and their provision with appropriate technical resources. It is in the creation of such opportunities that promotion consists. The primary concern in these pages thus lies with the origins of policy, such as the reasons why particular methods of promotion were adopted, the considerations governing the relation between administration and science, and the circumstances in which certain subjects of research were selected for special support. The subsequent advance of research soon becomes part of the general history of scientific progress.

The writer has accordingly been primarily concerned to describe the beginnings of what later became major developments in the Council's scientific programme, and the early formulation of administrative principles that are now either accepted as axiomatic or have been overlaid by subsequent amendment or retrospective rationalisation. This has involved checking with contemporary records, of which the long series of published annual reports provides a rich source that is still far from exhaustion. Unpublished minutes, memoranda and letters filed in the Council's office have added further information on many points. Personal recollection of events over the greater part of the period covered has been of much help in guiding the search, but it has not by itself been relied upon unduly.

It has been necessary to keep in view the requirements of several kinds of possible readers—those who have been directly involved in the Council's work; those who are concerned with the promotion of research in other contexts; and those with a general interest in the subject. For these last some explanations have been given that must seem elementary to the scientifically informed.

Acknowledgements

Personally, I am grateful to the Council for the opportunity to write this history, which has been for me a task of absorbing interest in my retirement; and also to the successive Secretaries, Sir Harold Himsworth and Sir John Gray, for encouragement of the enterprise and for the provision of facilities and assistance in the headquarters office. I am indebted to many other members of the staff, at all levels, for help as occasion has required.

Two former colleagues, the late Sir Charles Harington and Dr F. H. K. Green, have critically read the whole account in draft; I have had much benefit from their comments, which were in both cases based on long association with the Council. Others have critically read one or two chapters referred to them because of their special concern with the subjects covered.

Still others, in the office, have helped me in different ways, I particularly mention Mr D. J. Cawthron, himself trained as a historian, who has pursued

many inquiries on my behalf and has also brought a variety of relevant biographical and other matters to my notice. Mrs Norma Morris (followed by Mrs Anne Sanderson for a shorter period) gave part of her time to assisting me in the search for information (with the cooperation of the staff of the office registry), in critically checking my drafts, and in controlling the typing operations. Miss Daphne Gloag, head of the publications group in the office Secretariat, has given invaluable help in the final editing for press. My need for day-to-day secretarial assistance in this work has over the years been well met by, in turn, Mrs Heather Stephenson and Mrs Julia Smith.

A final acknowledgement, not for help in writing history but for their part in making it, is to the research workers and particularly those who have been my colleagues in the service of the Council. It is for what they achieve that the organisation exists. The administrator may do much to create opportunities and he may help to tend the growing tree; but it is they who plant it and they who bring it to fruition. Space has allowed me to name only a minority, and seldom to say more, but here I greet them all—whether still working or retired. Some pioneers to whom I have been able to make fuller reference were my seniors or contemporaries, and most of them have gone; they also were my friends, and I salute their memory.

L.T.
April 1972

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Introduction

by

Sir Harold Himsworth, KCB, MD, FRCP, FRS
late Secretary and Deputy Chairman, Medical Research Council

To those who have been part of an institution, to those who have been involved in its development and to those who have depended upon it for their support, the history of its origins, growth and difficulties cannot fail to have a special and intimate interest. If, in addition, the institution in question has stood as a prototype in a continuing field of human activity, interest passes beyond the special to become of wider relevance. When, therefore, the Medical Research Council reached the half-century of its existence, it was decided, for both these reasons, to take advantage of the availability of Sir Landsborough Thomson after his retirement and to ask him to put together an account of the Council's evolution in the developing context of the growing needs of this country for ever more scientific knowledge.

For this task Sir Landsborough was uniquely equipped. It was in October 1919, after a distinguished academic career in zoology at Aberdeen, and an equally distinguished military career in the First World War, that he joined the staff of the old Medical Research Committee, which preceded the setting up of the Council itself. From then, until his retirement thirty-eight years later, he was second-in-command at the Council's headquarters to three successive Secretaries. During this period, he saw the Council grow from its embryonic form to become a pervading national influence in the development of biomedical knowledge. Sir Landsborough is thus in an exceptional position to give an account of the developments during the last fifty years and, more important, to put on record the significance of the considerations that underlay these.

The Research Councils, in the form we know them, are a peculiarly British institution and, although they have been copied to a greater or lesser extent elsewhere, it is questionable whether they could have arisen save in the context of the ethos of this country. The idea that it is in the best interests of a country that research (as distinct from development) should be established independently of political interest or administrative commitment is not one that would normally occur to those concerned with the machinery of government even though it is but the translation into the

scientific sphere of the time-honoured caution that no man should be judge of his own case. That a committee including men as able as Haldane and Morant, in consultation with so far-seeing a Minister as Addison, could conceive such a scheme may occasion no surprise. It is doubtful, however, if even they could have ensured its acceptance but for the general climate of self-confidence and assurance that had carried over into the public life of this country from a century of unchallenged authority and power. Be that as it may, the pattern proposed by the Haldane Committee in 1918 was adopted in place of the traditional arrangement of putting research under the control of an administrative department with a particular interest in its findings. That the research council scheme has in principle been a success, that it is economic, that it has been, and is, a material factor in promoting public and scientific confidence, was shown by the conclusions reached by the Trend Committee, appointed more than forty years after its inception, when reviewing its performance.

It has been said that the greatest problem facing modem society is that of incorporating expert knowledge into government. It may well be, therefore, that now we have clearly entered an age when policy, not only at the departmental but also at the national level, is coming to depend increasingly upon the objective quality of the scientific knowledge available, the organizational pattern of which the research councils are the prototype might find increasing application. In any event, an informed account of the evolution and problems of one such council should be invaluable in promoting a more informed appreciation of the points at issue and the bearing of these on the public interest. It has been provided by Sir Landsborough Thomson in this book.

London, April 1971

Part I
Origin and Status: Constitutional History

Chapter 1

Predecessors in Great Britain (before 1911)

General retrospect—Early state-aided researches—Research under the Privy Council—Research under the Local Government Board—Research in the Services—The Lister Institute—The twentieth century—The Royal Commission on Tuberculosis

General retrospect

The conception that the promotion of medical research is a responsibility of the State is almost wholly a growth of the twentieth century so far as concerns the United Kingdom, which lagged in this respect somewhat behind France and Germany. Nevertheless, there were in the nineteenth century certain sporadic and partial incursions of the British Government into this field, presently to be mentioned. In earlier centuries the advancement of medical knowledge depended on the spontaneous enterprise of men engaged in professional practice and working either in the hospitals or in the general community. The advances mostly took the form of improvements in methods evolved in the course of practical experience. On the other hand, there were outstanding examples of results obtained from deliberate research in anatomy and physiology and into the nature and causes of disease. One need only recall such illustrious names as those of William Harvey (1578–1657) for the experimental demonstration of the circulation of the blood, of Thomas Sydenham (1624–89) for the clinical description of diseases as such and for studies of epidemiology, of John Hunter (1728-93) for work in comparative anatomy and physiology and for the foundation of scientific surgery, and of Edward Jenner (1749–1823) for inoculation with vaccines against smallpox. One may also mention James Lind (1716–94), an Edinburgh graduate and "founder of naval hygiene", who among other things made a controlled clinical trial to prove the value of citrus juice against scurvy. There followed in the nineteenth century such events as the discovery of the anaesthetic properties of chloroform and its use in midwifery by James Young Simpson (1811–70) and the introduction of antiseptic surgery by Joseph Lister (1827–1912); and the latter part of that century was marked by many discoveries which laid the foundations of modern medical science.

The pioneer discoveries stand out against the relatively undeveloped state of knowledge in their times; they were made under social conditions

and in scientific circumstances immensely different from those of today. The Industrial Revolution in the middle of the eighteenth century initiated a drastic change in the whole structure of society; the population vastly increased, the balance between rural and urban communities was radically altered, and the pattern of existence acquired new aspects for many people. More recent times have seen further growth in the complexity of life and in the sheer pace of living.

In parallel with these vast social changes there was, and continues to be, an immense development of science over the whole field of discovery and invention. Growing knowledge in different branches, both physical and biological, has many potential applications to the problems of human health; and thus a great responsibility has been placed on the medical research worker to see that they are in fact applied. New techniques of investigation of great refinement have been introduced, calling for higher standards of training in their use. A tendency towards specialisation, if sometimes overdone, has been inevitable. The time has long passed when medical research could progress solely as a by-product of the work of exceptional men in professional practice—itself much affected by the wider extent of knowledge and the need for more highly specialised skills of its own. No longer, indeed, is it the prerogative of the medical profession, for other disciplines have necessarily been brought to bear upon its problems.

The implications were beginning to be appreciated in the closing years of the nineteenth century. In America, Frederick T. Gates, the far-seeing lay adviser to John D. Rockefeller on his philanthropic expenditure, wrote in a memorandum of 1897:

> Medicine can hardly hope to become a science until it can be endowed, and qualified men enabled to give themselves to uninterrupted study and investigation, on ample salary, entirely independent of practice. (Quoted by Fosdick, 1956.)

The twentieth century has seen great developments in Britain, especially that with which the present work is concerned. First, however, it is of interest to look back more closely at earlier events, using Sir Arthur MacNalty's Fitzpatrick Lectures (published in 1948) as the main source of the next three sections of this chapter; the Heath Clark Lectures by Sir John Charles (1961) are also relevant.

Early state-aided researches

It is not surprising that the beginnings of State medicine, and with it the early forerunners of state-aided medical research, took place in the preventive field. Curative medicine was until the present century financed by the

fees paid privately to general and specialist practitioners, by charity through the voluntary hospitals, and only at the lowest economic level by the Poor Law administration. Measures of public health, on the other hand, had of necessity to be supported by the community, from the funds of central or local government. Public hygiene is indeed a subject of great antiquity, traceable from pre-historic times through such ancient civilisations as those of Egypt, Assyria, Israel (Mosaic law), Greece, and Rome. In England the first sanitary act was passed in 1388; for long, however, hygiene was a matter for legislation rather than administration, and enforcement lay with local rather than central authority.

The first essays in state-aided medical research arose as a by-product of administrative measures taken in the interests of the public health. Thus, in the period 1833–54 Dr Thomas Southwood Smith (1788–1881) was intermittently employed on inquiries for official commissions and, latterly, for the General Board of Health; he published reports on the causes of sickness and mortality, on the results of sanitary improvement, on quarantine, and on outbreaks of cholera and yellow fever. Inquiries for the Poor Law Commission, at the instigation of Edwin Chadwick (the salaried member), were likewise made by Dr Southwood Smith, and also by Dr Neil Arnott (1788–1874) and by Dr James Phillips Kay (later Sir James Kay-Shuttleworth—1804–77); in particular, they reported on fevers in London, and Kay later reported on fevers in Edinburgh and Glasgow.

A General Board of Health for England and Wales was set up as part of the machinery of central government in 1848; and although it did not last for long it had successors. Dr J. Simon, to be mentioned later, was Medical Officer of the Board and had a definite policy as regards research. Although he had no staff to assist him, he was able to employ specialists on a temporary basis to report on particular matters. Thus, in addition to Dr Southwood Smith, Dr E. H. Greenhow (1814–88) was employed to inquire into the proportion of deaths from different diseases in different districts; and at the same time Dr William Farr (1807–83), compiler of statistics in the General Register Office, was making his great contribution.

Research under the Privy Council

The General Board of Health was abolished in 1858, when its functions were transferred to the Privy Council—strangely foreshadowing a much later event (Chapter 5). Sir John Simon (1816–1904) was transferred from the Board as first Medical Officer of this new central health authority and played the outstanding part in the events that followed. The surname was pronounced in accord with his French ancestry; there is a recent biography (Lambert, 1963). Those were the days of the great all-rounders in the medical field, and Simon

was a pre-eminent example: he was a pathologist who had been elected a Fellow of the Royal Society at an early age for his work on the thyroid, and a surgeon who was later President of the Royal College of Surgeons of England; he had also been Medical Officer of Health of the City of London. He was not deterred by the fact that the administrative scope of his office was limited to public vaccination, the Quarantine Act, and certain special powers (during epidemic emergencies) under the Disease-Prevention Act.

Otherwise the Privy Council, in matters of health, had only the functions of inquiry and report the Privy Council were "to cause to be made from time to time such inquiries as they may see fit in any matters relating to the Public Health in any place or places". In Simon's view, this power should be used to "develop a scientific basis for the progress of sanitary law and administration and to aim at stamping on public hygiene a greater exactitude than it had hitherto had".

During the Privy Council regime, 1858–71, Simon promoted careful inquiries into outbreaks of disease and many new facts of epidemiology were established. Among the investigations were those of Dr Greenhow and Dr (later Sir) John Burden-Sanderson (1829–1905) into diphtheria, and of Dr Edward Smith (1818–74) into the nutrition of the populace on a basis of sample dietaries. In 1865 Simon sent investigators to report on typhus in Russia and on cerebrospinal meningitis in Germany. The great cholera epidemic of 1865–66 was made the subject of epidemiological and pathological studies. Other inquiries ranged over a wide field, including social and industrial medicine and touching on such varied subjects as infant mortality, tuberculosis, food, housing, parasites, and hospital hygiene.

Simon was indeed the first State organiser of medical research. As a pathologist, he had followed the work of Pasteur with much interest; and in 1864 he obtained authority from the Privy Council to promote laboratory investigations:

> Investigations, not necessarily connected with our practical business at the moment, but tending to be of powerful indirect influence on our practical business as a whole; investigations, which we knew could be of no rapid effect, but which we hoped would by degrees—even if only by the slow degrees of exact science—surely lead us to more precise and intimate knowledge of the causes and processes of important diseases, and would thus eventually augment more and more the vital resources of Preventive Medicine.

Of special interest, as a pioneer effort in biochemical study, was Simon's employment of Dr John Lewis William Thudichum (1829–1901) for research work intended "to promote an improved chemical identification of diseases".

The great interest of the various organic substances which Thudichum isolated from the body, particularly from the brain, was not fully recognised at the time; his findings indeed provoked a storm of hostile criticism, but they were later fully confirmed by others—including Dr Otto Rosenheim, working at the National Institute for Medical Research. In 1929, as a gift from his daughters, a valuable collection of chemical preparations made by Thudichum passed into the keeping of the Medical Research Council, as recorded in its Report for 1928–29. This remarkable man, born in the Grand Duchy of Hesse and originally named Ludwig Johann Wilhelm Thudichum, has been the subject of a biography by Drabkin (1958) and more recent annotations by Debuch and Dawson (1965) and reference by Charles (1961).

Nearly thirty years after Thudichum's death, his four by then aged daughters were found by Dr Rosenheim to be living in dire poverty in what had been their father's house; the Council was glad to be instrumental in obtaining for them a pension from the Civil List.

In 1870 Parliament approved a special item of £2000 per annum for Auxiliary Scientific Investigations» in the estimates of the Privy Council, and this must be reckoned as a landmark in State provision for medical research. As MacNalty wrote:

> The great value of these scientific investigations under the Privy Council lay not so much in the results achieved, although these were considerable, as in the principles won. State grants were made to workers in medical research, and the laboratory work was closely associated with epidemiological field inquiries. For the first time the State had officially recognised the importance of research into health and disease.

At this time, and until 1883, Burdon-Sanderson continued to receive grants—latterly at the Brown Institution for the Study of Animal Diseases—for work on such subjects as cattle plague, tuberculosis, the nature of contagion, wound infection, and the pathology of blood poisoning. Other grant-aided investigators had been paying special attention to cholera, and their reports to the Privy Council indicate a growing belief in the spread of this and other diseases by living organisms; they were also influenced by the classical demonstration in 1854 by Dr John Snow (1813–58), a general practitioner in London, that cholera infection was spread in drinking water.

To quote MacNalty again:

> With the aid of the novelists [notably Charles Dickens] and his classical reports, Simon educated public opinion in the importance of public health and built up the great edifice of English State Medicine with sound scientific knowledge and with the active support of the medical profession. Much of the success of the Medical

> Department of the Privy Council was due to the fact that its work was scientific and unaffected by political considerations to which National Health should never be subordinated.

Research under the Local Government Board

Simon's administration led to the great Sanitary Act of 1866. This was followed by the Royal Commission of 1869-71, from which resulted the establishment in 1871 of the Local Government Board, forerunner of the Ministry of Health—the Local Government Board for Scotland was set up in 1894—and in the consolidated Public Health Act of 1875. Simon passed from the service of the Privy Council to that of the new Board. So did (as he became) Sir George Buchanan (1831–95), a scientifically distinguished successor as Principal Medical Officer of the Board; he was a Fellow of the Royal Society, which once in every five years awards a Buchanan Medal instituted in his honour.

The policy of promoting special investigations and research was continued by the Local Government Board, although without any noteworthy increase in the scale of effort. The latter part of the nineteenth century was the period during which the causal organisms of many infective diseases were discovered, and this new knowledge had obviously great importance for public health. On the basis of earlier findings, the threat of further invasions of this country by epidemic cholera was repulsed. Investigations on similar lines were now directed towards typhus, plague, and food poisoning.

Some of the investigations were made by members of the Board's medical staff, and others through the agency of research grants; as MacNalty has said, "the financial grants were meagre, the recipients distinguished, industrious and enthusiastic". It was a method whereby men specially skilled in research could be brought, as a rule temporarily and partly, into the service of the Board. As a result, many papers advancing knowledge of bacteriology and chemical pathology were published in the reports of the Board's Medical Officer. Particular mention may be made of the experiments on rabies performed by Mr (later Sir) Victor Horsley (1857–1916), pathologist and surgeon, as secretary of a Commission appointed by the Board to inquire into Pasteur's method of dealing with the infection. Dr E. E. Klein (1844–1925), an Austrian by birth, made many investigations for the Board—mainly into infections—while director of the Brown Institution (see Volume Two). Pioneer work in the chemical pathology of infectious diseases was done for the Board by Dr Sidney Martin (1860–1924); and on the purity of water supplies by Dr (later Sir) Alexander Houston (1865–1933). Many other eminent pathologists contributed in like manner, including Professor F. W. (later Sir Frederick) Andrewes (1858–1932), who became a member

of the Medical Research Council, and Dr M. H. Gordon (1872–1953), who became a member of the Council's scientific staff. An eminent physiologist, Dr J. S. Haldane (1860–1936), did work for the Board on the use of carbon monoxide for the destruction of rats in ships infected with plague. Dr S. A. Monckton Copeman (1862–1947) spent most of his working life in the service of the Local Government Board (and latterly in that of the Ministry of Health), doing research work on smallpox vaccine in particular.

In 1910 the Board established a laboratory in London for bacteriological investigations related to its work, and the staff undertook research on food-poisoning, streptococcal infections, and other subjects. This laboratory was later continued by the Ministry of Health until 1939, when on the outbreak of the Second World War it became the nucleus of an Emergency Public Health Laboratory Service organised by the Medical Research Council—but that is looking ahead (see Volume Two).

Research in the Services

Medical research, particularly on tropical diseases, was incidentally supported by the State through the work of medical officers in the various Services of the Crown; a few outstanding examples must suffice. David Bruce of the Royal Army Medical Corps (later Major-General Sir David Bruce; 1855–1931) discovered the causative organism of 'Malta' fever in 1887; and in 1895 he showed that the 'nagana' of domestic animals in Africa was due to a trypanosome carried by species of tsetse fly (*Glossina*), and subsequently that human sleeping-sickness was likewise due to trypanosomes similarly carried and that wild animals acted as carriers of trypanosome infections. Ronald Ross of the Indian Medical Service (later Colonel Sir Ronald Ross; 1855–1932) elucidated in 1895–97 the life-history of the malaria parasite in its transmission from man to anopheline mosquito, and back to man; in so doing he confirmed (in parallel with independent Italian investigators) a hypothesis of Dr (later Sir) Patrick Manson (1844–1922), the acknowledged 'father of tropical medicine' but himself at that time working in the service of the Chinese Imperial Maritime Customs and in the University of Hong Kong.

William Boog Leishman of the RAMC (later Lieut.-General Sir William Leishman; 1856–1926) discovered the parasite causing kala-azar and also did important work on African tick fever. He was later a member of the Medical Research Council; and he had the unusual distinction for a pathologist of becoming Director-General of Army Medical Services. Leonard Rogers of the Indian Medical Service (later Major-General Sir Leonard Rogers; 1868–1962) made numerous researches into leprosy, cholera, and other tropical diseases. Some of his later work was published by the Medical Research Council, of which he was also a benefactor (Chapter 16).

Although it is not possible to rival the record of the Indian and armed services, officers of the Colonial Medical Service also contributed an impressive total to medical knowledge in the tropical field.

The Lister Institute

An event in the final decade of the nineteenth century, although involving no use of public funds, was of much significance in the development of the general situation. This was the establishment in London, in 1891, of 'The British Institute of Preventive Medicine'. In 1898, on the receipt of funds commemorating the centenary (in 1896) of Edward Jenner's discovery of vaccination, the title was changed to 'Jenner Institute of Preventive Medicine'; but later a commercial organisation was found to have prior claim to a similar name. The title was accordingly changed again in 1903 to 'The Lister Institute of Preventive Medicine'. And in 1966 the Lister Institute celebrated its 75th anniversary, with a great record of scientific achievement to its credit. Its history has been briefly related by two of its Directors (Drury, 1948; Miles, 1966) and more fully by three former members of its staff (Chick, Himie and Macfarlane, 1971).

Some quarter of a century later, the Lister Institute—with greatly increased endowments and a high scientific reputation—was to be involved in the plans for a medical research organisation under (Government (Chapter 10). In the event, no constitutional involvement materialised; but many instances of close scientific cooperation with the Medical Research Committee, and its successor Council, are mentioned in the present work.

The twentieth century

Some of the examples already quoted overlap into the twentieth century, at the beginning of which the general position remained very much the same as during the preceding few decades. The only medical research that was deliberately state-aided consisted of some special investigations promoted by the Local Government Board; incidental support continued to be given through research work undertaken by whole-time medical officers in the public service.

Certain research projects overseas did receive official support. Thus, in 1905 the Secretary of State for India, together with the Royal Society and the Lister Institute, appointed an Advisory Committee to direct inquiries into problems of plague and to administer an annual grant provided for the purpose. The Advisory Committee in turn appointed a working Commission to make investigations in India; the results were published in a series of reports from 1906 onwards.

Otherwise, the advancement of knowledge was mainly the responsibility of the universities, at that time largely self-supporting, and of the associated

teaching hospitals maintained by charity. On the clinical side, however, progress in research was handicapped by the fact that the professors in such subjects were part-time teachers engaged in practice. Nevertheless, there were exceptional men in the medical profession who were able to undertake important research work while in specialist or general practice—Dr (later Sir) James Mackenzie (1853–1925), for instance.

Around the turn of the century also, privately financed institutes for medical research were beginning to appear. The outstanding example of the Lister Institute has already been mentioned. The Imperial Cancer Research Fund was established in 1902, and from funds raised by subscription maintained its own research laboratory and other projects. Research was also done in the laboratories of some of the drug manufacturers, notably in the Wellcome Physiological Research Laboratories; the latter had begun work in 1894, but it was not until some ten years afterwards that they undertook important researches in physiology and pharmacology in addition to the main original function of producing antitoxins.

In 1909, Sir Otto Beit founded and permanently endowed—in memory of his brother Alfred—the Beit Memorial Fellowships for Medical Research. They were intended "to promote the advancement by research of medicine and the allied sciences in their relation to medicine". These highly competitive awards have enabled a series of young men and women to devote a few years wholly to research work and by so doing, apart from the immediate value of their results, to equip themselves for careers in which research would at least play an important part. The list of former Beit Fellows shows how many who began in this way subsequently became leaders of research in medical science. The list includes a good number who became members of the Medical Research Council or directors of its establishments or (in two instances) its Secretary.

The Royal Commission on Tuberculosis

The true predecessor of the Medical Research Committee (later Council) was the Royal Commission Appointed to Inquire into the Relations of Human and Animal Tuberculosis. This was set up by an Order in Council of 31 August 1901, under the chairmanship of Sir Michael Foster, Professor of Physiology in the University of Cambridge. Its remit was to inquire whether the disease in animals and man was one and the same; whether animals and man could be reciprocally infected with it, and under what conditions, if at all, the transmission of the disease from animals to man took place, and what were the circumstances favourable or unfavourable to such transmission. So great an authority as Robert Koch had stated publicly, at a meeting in London, that the bovine bacillus was so different from the human bacillus that there

was virtually no danger of its causing tuberculosis in man. The truth or falsity of this was a matter of vital importance in preventive medicine.

The Commission's brief first Interim Report, published in 1904, contains the following highly significant sentence: "After duly considering the matter, we came to the conclusion that it would be desirable not to begin the inquiry by taking evidence, that is to say, by collecting the opinions of others (though this might be desirable at a later stage), but to attack the problem laid before us by conducting experimental investigations of our own." The Royal Commission on Tuberculosis thus became a research body, eschewing mere opinions and seeking to establish facts by promoting scientific investigation. To this end it was provided with money from public funds for the employment of a scientific staff and for the cost of experiments. The 'observers', so called, were Dr Louis Cobbett, Dr A. Stanley Griffith, Dr Arthur Eastwood, Dr H.J. Hutchens, and later Dr F. Griffith. Dr E. J. Steegmann was Secretary of the Commission.

The main purpose of the Commission's first publication was to announce the finding that "tubercle of human origin can give rise in the bovine animal to tuberculosis identical with ordinary bovine tuberculosis". The converse, not being a matter suitable for direct experiment, took longer to prove, but meanwhile the Commission urged that it would be most unwise to base legislative measures on the view that the disease caused by the one bacillus was wholly different from that caused by the other. The Commission remained active for 10 years in all, and during the greater part of that time its scientific staff was engaged in bacteriological researches in the Royalcot Laboratory at Stansted, Essex. The results were published in the Commission's reports, the last of which appeared in 1911 (with subsequent appendices), and constituted an important addition to knowledge of the disease. One of the Commission's staff, Dr A. Stanley Griffith, moved to Cambridge and after three years as a Research Scholar of the Grocers' Company passed to the service of the Medical Research Committee, in which (and in that of the successor Council) he long continued his work on tuberculosis (Volume Two).

The problem of tuberculosis, however, still remained one of the gravest in the field of health. It appears to have been in some measure the need for research on the subject that led—in the same year, 1911—to the legislative provision from which the Medical Research Committee originated (Chapter 2).

Chapter 2

Construction Period (1911–1913)

The National Insurance Act 1911—Origin of the provision for research— Interpretation of the provision—The Departmental Committee on Tuberculosis—The views of witnesses—Implementation of the provision

The National Insurance Act 1911

In 1911, the year in which the Royal Commission on Tuberculosis issued its Final Report (Chapter I). Parliament passed the National Insurance Act—a measure, introduced by Mr David Lloyd George (later Earl Lloyd George of Dwyfor) as Chancellor of the Exchequer, which took a pioneer step towards what later became known as the Welfare State. It established schemes for health and unemployment insurance, based on contributions from employees, employers, and the State. Among other works, the scholarly history of national insurance in Great Britain by Professor Bentley B. Gilbert (1966) is especially worth consulting.

One of the provisions, that of sanatorium treatment for cases of tuberculosis, has particular significance for this history. Subsection (2) of Section 16 of the Act laid down that one penny in respect of each insured person should be contributed annually to the expenses of sanatorium benefit out of moneys provided by Parliament; but that the Insurance Commissioners might retain the whole or any part of that contribution "for the purposes of research" (see Appendix B). In this rather indirect way a national fund for medical research was created. The yield was in due course estimated as being of the order of £57 000 per annum (Chapter 15).

This first National Insurance Act was epoch-making from several points of view, and in the promotion of medical research it was an authentic landmark. Sir Walter Fletcher used to say that the three British statesmen who had notably furthered the cause of medical science were King Henry VIII, who founded the regius chairs of 'physic' at Oxford and Cambridge (although in fact the regius chair of medicine at Aberdeen is the oldest foundation of its kind in what is now Great Britain); King Charles II, who gave the Royal Society its Charter; and Mr Lloyd George with his Act.

Origin of the provision for research

It would be of much interest to know whose idea it was to include provision

for research in the Bill—if indeed it was not Lloyd George himself, and it has been suggested that his mind did not run in that sort of direction. There was for long a tradition, and there have been published statements up to recent dates, ascribing the idea to Dr Christopher (later Viscount) Addison; but his own memoirs state that he had never met Lloyd George until after the Bill was before the House of Commons, although he was a valiant supporter from the Second Reading onwards. Nor afterwards did Addison ever claim the credit in this particular matter; and the only evidence for it is a press report of a far from explicit compliment paid by Lloyd George in an after-dinner speech in 1914.

There have also been public statements attributing not only this provision but much, if not the whole, of the Act to Sir Robert Morant, the Permanent Secretary of the Board of Education. There is no foundation for this; Morant did not come into the picture until he was appointed Chairman of the National Health Insurance Commission (England) when the Bill was almost law; that he later played the biggest part in implementing the Act is a different matter.

Another name suggested is that of Sir George Newman, then Chief Medical Officer of the Board of Education, but virtually all the evidence is against his having been involved; the only apparent exception is a remark, again far from explicit, made by Lloyd George in conversation as long afterwards as 1937 and quoted by Newman in his personal diary without comment. In the course of much writing about the research provision and its outcome, Newman never himself claimed credit in the matter. A name that has also been suggested is that of Sir Arthur Newsholme, then Principal Medical Officer of the Local Government Board, but this is solely on the ground that he was the only medical man regularly consulted during the drafting period; in fact, none of his minutes among the Bill papers mentions research. The whole question has been discussed elsewhere by the present writer (Thomson, 1973) in more detail and with full references.

Another tradition was that originally the draft Bill limited the research to tuberculosis, as inclusion of the provision in a clause dealing with sanatorium benefit might suggest. This was probably a subsequent attempt to rationalise the contextual position, and there is no evidence that there was anything more in the latter than a matter of drafting convenience. It might well be, nevertheless, that the originator of the provision had research on tuberculosis particularly in mind; this would not have been surprising, with the background supplied by the recent Royal Commission (Chapter 1) and the disease being in any event singled out in the Act for special attention. (The terms of the Financial Resolution related to the Bill are even more suggestive, referring to "sanatorium benefit, including research work in connection

therewith".) The context did afterwards raise a question of legal interpretation, as noted below.

The only contemporary evidence on record appears to be that of William John Braithwaite (1876–1936), the civil servant who chiefly helped Lloyd George in the preparation of the Bill. His memoirs, based largely on his diary, were edited after his death by another civil servant. Sir Henry Bunbury, and published only in 1957. In these, Braithwaite names those who were associated with him, notably John S. (later Lord) Bradbury of the Treasury; and he makes it plain that Lloyd George himself was the principal architect of the measure, framing it without having the resources of a major administrative department behind him.

In his diary for 8 May 1911, the day on which the draft was delivered to the Bill Office at 10.30 p.m., Braithwaite recorded:

> Meeting in the Chancellor's room, many persons, to finish up the bill. Many-points decided of a smaller kind. The three days' newspaper criticism has not added a single point, but the Chancellor is setting aside a small sum for research.

To this extract he appended, in his memoirs, the following comment:

> The "small sum set aside for research" was the 1d a member, to which the Medical Research Council is due—a great contribution. I do not know who deserves the credit for thinking of it.

What Braithwaite did not know on such a matter is probably now beyond discovery; search of the Bill files in the Public Records Office, and of the Lloyd George papers in the Beaverbrook Library, has yielded no clue. During the passage of the measure through Parliament, the provision attracted little attention amid the highly controversial social and financial issues. Even Dr Addison, in a long speech on the Second Reading on 24 May 1911, made no reference to it; and at the committee stage in the House of Commons, on 2 August 1911, the entire sub-section was passed without debate (Hansard).

Although Clause 16 (originally numbered 15) went through the Committee stage in the House of Commons unchallenged, there had been a debate on 12 July 1911 over Clause 8, which set forth the rates and conditions of the benefits to be provided. Mr (later Sir) Austen Chamberlain moved an amendment to omit Sub-Section (i)(b), relating to sanatorium benefit, on the ground that it was inappropriate to single out one disease, tuberculosis, for special provision in a measure of otherwise general scope. This evoked a long and reasonable debate, resulting in withdrawal of the motion for amendment. In the course of this there were several sympathetic references

to research, in relation to tuberculosis, although the subject was not explicit in the wording currently under discussion. In particular, Dr Arthur Lynch (representing an Irish constituency) urged that more emphasis should be laid on the research aspect; he went so far as to say that sanatorium treatment, about which much was still uncertain, would be of no value without provision for further research.

In the House of Lords two amendments were moved to Clause 16(2). One, by Lord Tenterden, was to delete (b) of the sub-section, including the proviso; this was frankly an anti-vivisectionist objection to research and, on being opposed by Lord Haldane, the motion was negatived without division. The second, moved by Lord Balfour of Burleigh (Lord Baron), was to add the words 'and education' after 'Research' at the end of the proviso; on its being pointed out by Lord Haldane that education was covered in a later section, the motion was withdrawn.

Interpretation of the provision

It may seem somewhat tortuous to have provided the money as a discrete item towards "defraying the cost of sanatorium benefit" and in the next breath to have given power to retain it for research; the formula does indeed appear to have involved some risk that the provision would be interpreted in a restricted sense by reason of its immediate context. Certainly, the National Health Insurance Commissioners almost at once thought it advisable to obtain a legal opinion on the point. The opinion given by the Law Officers on 22 January 1913 is preserved in the files of what is now the Department of Health and Social Security and is in the following terms:

> The Insurance Commissioners may frame their regulations under the proviso to section 16(2) so as to enable the monies therein referred to be applied for purposes of research in connexion with any disease to which insured persons may be liable.

This was paraphrased by the Commissioners, with a slight change of emphasis, in their Report on National Health Insurance in 1913–14, as follows:

> Advice has been obtained to the effect that the application of the Research Fund is not limited to research in tuberculosis, but that the money may be expended on research into any disease to which insured persons are subject.

The opinion was never tested in the courts, during the few years that this part of the Act remained operative, and so did not acquire the force of a judgement. The terms of the opinion—especially in the paraphrased version—were actually not wholly meaningful in a scientific sense, as medical research cannot properly be regarded as consisting solely of the direct investigation of diseases, especially if limited to particular diseases within some administrative category.

In practice, the purported limitation of subject matter was interpreted so widely as to impose no restriction at all. For instance, the earliest research schemes under the Act included work specifically directed to conditions found only in children, who were not at that time covered by insurance benefits. A few years later, on 29 December 1919, Sir Robert Morant, by then at the Ministry of Health, said in a semi-official letter to the Treasury (about research in tropical medicine):

> Legal advice was taken at the outset, to support us in holding that there was no sort of limitation, under the Act, upon the spending of the money in the interests of insured persons in particular; the money was to be available for spending upon all forms of medical research. This, after all, was only rational, since the employed population of this country cannot but be benefited by any form of investigation that could conceivably come within the phrase 'medical research'.

This seems to go somewhat beyond the official statement quoted earlier. By an extension of the argument, to which further reference is made in Volume Two, there was not even thought to be any geographical limitation on the places where research could be undertaken.

A further point is that the power to retain money for research was permissive and not mandatory; but there was clearly an intention to provide funds for research, and when the measure became law nobody doubted that the permissive power would be exercised. Formally at least, the discretion rested with the Insurance Commissioners appointed for the purposes of Part I (National Health Insurance) of the Act, and of these there were four bodies—respectively for England, Scotland, Ireland, and Wales. There was, however, to be "a joint committee of the several bodies of Commissioners"; and, although its stated function was to make inter-territorial adjustments of a financial nature, it later came to have important significance for the promotion of research, which clearly called for an undivided administration. This Joint Committee was incorporated under a later Act (Appendix B).

The Departmental Committee on Tuberculosis

The Act itself gave no guidance as to how this money, if retained for research, was to be applied or administered. Much of the public thinking on the subject was done by the Departmental Committee on Tuberculosis appointed by the Treasury on 22 February 1912, under the chairmanship of Mr Waldorf (later Lord) Astor, MP—and with the recurring name of Dr Christopher Addison, MP, in the list of distinguished medical and other members. The remit was: "To report at an early date upon the consideration of general policy in respect of the problem of tuberculosis in the United Kingdom, in its preventive, curative, and other aspects, which should guide the Government and local bodies in making or aiding provision for the

treatment of tuberculosis in sanatoria or other institutions or otherwise."

Although these terms of reference made no explicit reference to the National Insurance Act, its provisions relating to tuberculosis and the associated provision relating to research were very much in the Committee's minds.

In its Final Report, published in 1913, the Committee made the following comment on the provision for research contained in the Act:

> This provision marks a most important development in the attitude of the State towards scientific research into the causes, treatment and prevention of disease. Hitherto, apart from a small annual sum expended by the Local Government Board and occasional grants for particular objects, the State has, in the main, left research to voluntary agencies. The Committee welcome the fact that by the National Insurance Act a considerable sum of money is now permanently available for the purpose of research. ... [It is] their opinion that research under the National Insurance Act should be organised in such a way as not to discourage either voluntary contributions or voluntary research towards the same ends. The aim should rather be to stimulate and cooperate with voluntary agencies.

It was natural that a Committee specifically concerned with tuberculosis should, having regard to the origin of the provision, consider that research on that subject should have a predominant claim; but it was aware that the claim would probably not be exclusive. The view on this aspect is stated as follows:

> The Committee are of opinion that the whole of the moneys made available by the National Insurance Act could usefully be spent on research in connection with tuberculosis. They understand, however, that the Insurance Commissioners have been advised that the moneys in question may properly be applied to research in connection with any disease which may affect insured persons. The Committee anticipate that for the present, at any rate, the moneys will be applied mainly to research in connection with tuberculosis and its allied problems, but, in view of the possibility of extension of research to other diseases, they consider that any scheme for dealing with these moneys, and any machinery which may be established for that purpose, should, as far as possible, be on lines which will be applicable to and facilitate such an extension.

It may be doubted, however, whether any sum approaching the total available for research could at that time have been effectively spent on tuberculosis alone.

The Committee appreciated the need for promoting research work on the widest possible geographical basis:

> The boundaries between the different parts of the U.K. which it may be necessary or desirable to observe for political or administrative reasons are not necessarily applicable to a scheme for scientific investigation. The work of research should be carried on in places having the best facilities for the particular investigation contemplated without being limited by consideration of geographical situation,

> provided that every part of the U.K. has the advantage of close association with the work of the scientific investigators.

The Report then proceeded to recommend a research organisation consisting of an Advisory Council and an Executive Committee:

> The Advisory Council should include representatives from different parts of the U.K, of the various Government Departments concerned, of medical, scientific and teaching bodies interested in the question of research, together with scientific persons of distinction, and men of business capacity and proved ability with, in most cases, experience of public work. The representatives of Government Departments should be in a minority and should be members *ex officio*. The Executive Committee should consist of not fewer than five nor more than ten members. The majority, but not all of these members, should be experts.

Further recommendations followed on the duties of the two bodies:

> The duties of the Advisory Council should be to advise, make suggestions and submit the Executive Committee's budget to the Government, and to advise, criticise and make suggestions to the Executive Committee. The duties of the Executive Committee should be to frame a budget which should be discussed and considered with the Advisory Council before being submitted by the Council to the Government; to determine, after consultation with the Advisory Council, the scheme of research work; to make periodic reports to be transmitted by the Advisory Council to the Government; and generally to organise and supervise the research work wherever carried on.

It will be seen later that the respective duties and the relationship of the two bodies were in the event, and fortunately, defined in rather different terms. Further:

> It is obvious that the Executive Committee will need a permanent whole-time Secretary in order to assist than in carrying out their duties. In view of the character and importance of these duties, he should be an expert of high standing in research, possess administrative capacity, and be paid a salary of 1,200 *l.* to 1,500 *l.* per annum. If practicable, he should also act as Secretary to the Advisory Council.

The mention of "high standing in research" as a qualification is interesting; later this essential requirement was for a time in danger of being overlooked, although it was eventually fulfilled (Chapter 3).

Other recommendations on administrative matters included this far-sighted comment on financial arrangements:

> It is impossible to forecast accurately whether research work will produce positive or negative results, the exact length of time required to carry out a particular piece of work, the amount of money required to complete it, or what further work the results obtained may necessitate. Accordingly the Executive Committee will find it difficult to frame any hard and fast estimates of expenditure, or lay down with accuracy what sum of money will need to be spent in a given year. The balance unexpended in a given year should, therefore, be carried forward to the next.

The Committee expressed the opinion that the methods of expending money on research should include:

(a) The establishment of a central bureau at the headquarters of the Advisory Council and the Executive Committee; this should have "a statistical and sociological department", and also "a library and publishing department".

(b) Clinical, pathological, bacteriological, chemical and other scientific researches carried out by competent investigators employed by the Executive Committee in institutions approved by them.

(c) Researches of the same nature in an institution or institutions (including laboratories and hospital wards) which should be under the immediate control of the Executive Committee to the extent and for the purpose in question.

(d) Special inquiries, e.g. of a statistical and sociological nature, carried out by the Executive Committee independently of any particular institution.

The question was also raised whether a sum of money, not exceeding £1000 per annum, should be available as a prize or prizes for the best original research work done, but to be awarded only if the discovery was of sufficient importance and utility (see Chapter 9).

Finally, and again far-sightedly, the Committee was "of opinion that some workers of proved and exceptional ability should be enabled to devote their whole time to research work, and should be given a definite and adequate salary and be entitled to a pension. Efforts should also be made to retain for research work young and talented investigators who would otherwise tend to drift into other lines".

The views of witnesses

The Committee expressed, as above, a clear concept of how the money for research should be used. Going behind this, it is of some historical interest to review the varying opinions contained in the memoranda submitted for the Committee's consideration and published in an appendix constituting the second volume of the Final Report. In general, considering that the Committee was dealing with tuberculosis in all its aspects, a remarkable degree of interest was shown in the provision for research.

Some of the memoranda submitted to the Committee were not concerned with the research aspect at all. Others dealt with research in part or even exclusively. Among these, some writers assumed that research would necessarily, or even desirably, be restricted to tuberculosis; their proposals have therefore only a limited interest, although they include expression of

general principles having wider application. Some, on the other hand, assumed that the money would be available for a more comprehensive scheme of research, although perhaps not in the first instance; and a few strongly urged the desirability of this. Of those who examined the financial implications most formed low estimates, relatively to the total available, of the cost of a research scheme limited to tuberculosis; one spoke of the need to avoid suddenly placing a large sum in 'the pathological market', where there was already a dearth of experienced workers. The extreme views on this question were voiced, on the one hand, by professor Sheridan Delépine, who propounded a budget of £60 000 per annum for research on tuberculosis alone; and, on the other hand, by Sir James Kingston Fowler, who wrote:

> Nothing would afford me greater pleasure than to hear that a sum of 60,000 *l.* a year was to be devoted to research in pathology, yet, notwithstanding that tuberculosis is a subject in which I am deeply interested, I should regard it as little short of a calamity if that, or any such sum of money, were to be allocated to research in tuberculosis alone.

> Although I recognise that when it is only possible to obtain money from private sources for research in connection with a special subject, such as cancer or tubercle, it is better to accept than refuse it, yet I believe that advances in our knowledge of the pathology of those diseases is more likely to follow upon increased support being given to general pathological research in an Institute, similar to the Institut Pasteur, where many workers are engaged upon a variety of researches, under the guidance and inspiring influence of men like Roux and Metschnikoff, than by devoting large sums annually to research in a given subject.

Dr James Ritchie of Edinburgh wrote that "the problems of tuberculosis cannot be fruitfully considered apart from those of infections generally". Professor Matthew Hay of Aberdeen proposed that additional funds should be provided, independently of the National Insurance Act, to permit of extension of the research to infectious diseases other than tuberculosis.

It is implicit in most of the memoranda dealing with research (and explicit in Dr Ritchie's) that there should be a unified scheme and a single controlling authority for the United Kingdom as a whole.

A few writers apparently regarded 'laboratory work' and 'research' as synonymous terms, urging the need for a chain of pathological laboratories for diagnostic work. Most of those who concerned themselves at all with research naturally did not fall into this error. Some wished to see different laboratories set up for the two purposes; thus. Professor Matthew Hay proposed local laboratories for routine purposes and a central institute for research. Dr A. Eastwood went further; drawing a clear distinction between

routine diagnosis and research (although they might sometimes be related), he stated that there was no justification for defraying the cost of routine work out of research funds.

Many of the writers, whether considering research on tuberculosis alone or on a wider basis, discussed the relative merits of a central institute and of a system of subsidies or grants for work in the universities and other existing agencies. Dr Simon Flexner wrote from America, with experience of the Rockefeller Institute in mind, to stress the essential role of a central research institution; some of the others did not attach importance to this. A fairly general view favoured a balanced research scheme which would include central and peripheral elements. Dr W. S. Lazarus-Barlow of the Middlesex Hospital and Professor E.J. McWeeney of Dublin favoured the idea of a special research hospital. Dr A. Eastwood, Dr A. C. Inman of the Brompton Hospital, and Professor (later Sir) Robert Muir of Glasgow recommended that the research institute should have a farm for experimental work with large animals. Some mentioned the desirability of provision to enable research workers to visit foreign countries.

Some of the writers who were themselves highly experienced in research had cogent things to say about the recruitment and employment of scientific staff. Thus Professor Muir stressed that for work aiming at new discoveries "men of the highest qualifications are necessary; they must possess originality and breadth of outlook, and must have had the most complete scientific training possible in their particular department". Sir Ronald Ross, then of Liverpool, proposed subsidies to private research workers, part-time grants to laboratory workers throughout the country, and the employment of whole-time workers—some temporary and others permanent. He also thought that there should be money prizes to be awarded in retrospect for the best work done.

Sir Almroth Wright of St Mary's Hospital urged the need for creating a medical research service, to which suitable men would be attracted by prospects of whole-time careers and eventual pensions. For the education of recruits to the service he envisaged the central institute as a kind of college with five departmental heads of professorial status. Dr Eastwood pointed to the importance of avoiding a commitment of funds by apportioning lump sums to existing external institutions in accordance with the strength of their claims. Such payments would be difficult to terminate and the central authority would lose control of expenditure.

A few of the writers discussed the nature of the central authority which should be set up to administer the funds for research. Dr E. J. Steegman, who had been Secretary of the Royal Commission on Tuberculosis, mentioned that it had already in 1908 recommended to the Local Government Board

that a permanent research body should be created. Dr (later Sir) Charles Martin actually used the title 'National Medical-research Committee'. Professor Muir stressed that the controlling body should consist of experts. Dr Eastwood pointed out that there was no guiding precedent, as the research project was envisaged as continuous and it would be impossible to lay down a complete scheme for it at the outset. Sir Ronald Ross said that in the past research workers had been inadequately remunerated, and "the direction of the work is put under men who have not themselves been greatly distinguished in the line, and, in fact, there is not a great show of intelligence in the organisations, even where funds are available". Sir Almroth Wright considered that, after the first appointments had been made, his proposed collegiate central institute should achieve autonomy under its own senate—a contention to which he was to return at a later date.

Finally, it is interesting to note that, of those who submitted memoranda, the following later served as members of the Medical Research Committee or Council (see Appendix H): Clifford Allbutt, F. W. Andrewes, W. Bulloch, A. K. Chalmers, Matthew Hay, C.J. Martin, and R. Muir—while some of the others became closely associated with the project in different ways.

Implementation of the provision

The Report of the Departmental Committee gave a firm lead for implementation of the Act's provision for research, as the Insurance Commissioners acknowledged in their own Report for 1913–14. Administrative action certainly followed without any substantial delay; but there must have been some hard in-fighting behind the scenes, possibly while the Committee was still sitting, as Addison later recorded (1924) that there had been "a long battle between those who wanted to departmentalise the scheme by appropriating the money for the Local Government Board, and those of us who were determined to secure the utmost possible freedom for whatever body had to administer it".

The Committee's Report is a document of great historical interest, in the particular field, because it presents the first formulation of a number of ideas that were not only translated into action at the time but have remained effective to the present day. An account of the original implementation follows immediately (Chapter 3).

(A statement that has been repeated several times in print, once quite recently, must here be discounted in order to clear a misconception from the record. It was to the effect that in 1913 "the Government" approached the Lister Institute of Preventive Medicine with a suggestion that the latter might agree to become "the nucleus" of a new "Medical Research Department" to be set up under the Act; that after much debate the proposal was rejected by the Institute; and that the Government then

> proceeded to set up the Medical Research Committee. This account seems to have arisen from misunderstanding of an episode of narrower significance and later date that is hereafter recounted, from original sources, in its proper context (Chapter 10). In short, the approach was made by the Lister Institute to the already established Medical Research Committee in 1914; and it referred to a possible use of the Institute as the Committee's central establishment.)

A vital decision was that there should be a single research organisation for the United Kingdom, and not one under each of the four Commissions. These had first, however, to pass separate resolutions formally 'retaining' the penny per person for research; this is recorded in the Report for 1913–14 of the English Commission.

The credit for this unity was claimed, no doubt justly, by Sir Robert Morant, in a personal letter to Mr A. J. (later Earl of) Balfour on 22 October 1919 (with copy to Fletcher):

> This Medical Research Committee has been a particularly favourite child of mine since the beginning of 1912, when I was able to prevent the small sum of money then made available for Medical Research from being broken up into four parts for the four divisions of the United Kingdom; and we managed to get a Committee set up for the Kingdom as a whole, which has done quite magnificent work, and particularly so during the war.

The eventual formal step implementing this decision, by placing the responsibility on the National Health Insurance Joint Committee, is mentioned later (Chapter 3).

Chapter 3

The Medical Research Committee (1913–1920)

Appointment of the Medical Research Committee and the Advisory Council—Statutory regulations—The first Chairman—Early proceedings of the Committee—'Central Institute'—Scientific staff—First scheme of research—Appointment of a Secretary—The First World War—Constitutional changes—End of the Advisory Council

Appointment of the Medical Research Committee and the Advisory Council

It was implicit in the action taken to set up an organisation for promoting medical research, with the funds to be provided under the National Insurance Act 1911, that the research was not to be limited to tuberculosis, and also that the organisation was to be a single one for the whole United Kingdom (Chapter 2). The action, in the first instance, consisted in the signature by Mr Lloyd George, as "Minister responsible to Parliament for National Health Insurance" (Chancellor of the Exchequer), of two Minutes of Appointment dated 20 June 1913.

One Minute appointed nine persons to be "a Committee with executive functions, to be known as the Medical Research Committee, for the purpose of dealing with the money made available for research under the proviso to Sub-Section (2) of Section 16 of the National Insurance Act 1911". Lord Moulton, a law lord who was also a Fellow of the Royal Society, was named as chairman; the others were two Members of Parliament and six persons appointed in respect of their scientific qualifications (Appendix H), From 1916 three members were to retire at intervals of two years, their places being filled (by reappointment or otherwise) by the Minister. The terms of reference were as follows:

> The duties of the Committee will be to formulate the general plan of research and enquiry at the outset, and for each year to make arrangements for carrying it out, and to supervise its conduct so far as may be necessary, and in particular to secure adequate coordination of the various parts of the scheme. It will also deal with the collection and publication of information and of the results of statistical and other enquiries so far as suitable or necessary. For this purpose it will determine, subject to the assent of the Minister responsible for National Health Insurance, the expenditure of the money available each year; the total of the sums available under paragraph (b) of subsection (2) of section 16 being about £57 000 per annum. Before the Minister responsible for National Health Insurance gives his final assent to the scheme of the Medical Research

> Committee for any year, he will receive criticisms and suggestions in regard to it from the Advisory Council for Research, which is being appointed for this purpose.

The second Minute appointed an "Advisory Council for Research". Lord Moulton, again, was named as Chairman; and there were 40 other members. The list included the names of two Members of Parliament and one veterinary surgeon (Appendix C); the others, including two women, were all members of the medical profession; several held positions in the public service and five were Fellows of the Royal Society. The Minute stated that the expenditure of the money annually available for research would be directed by the Medical Research Committee appointed for the purpose, subject to the assent of the Minister responsible for National Health Insurance; and that the Scheme drawn up by the Committee would, before ministerial assent, be referred to the Advisory Council,

> whose duty it will be to consider the Scheme when referred to them and to afford to the Minister all such criticisms and suggestions in regard to it as they may think desirable to submit to him from the point of view of securing that adequate consideration is given to the different problems arising and the various kinds of research work going on in the different parts of the United Kingdom, and in other portions of the Empire, in America, and in foreign countries, and also to the general scope of the research work to be undertaken under the Committee's Scheme.

The two Minutes were printed, and the substance of both was also published in a circular. According to the circular, the members of the Advisory Council were appointed by the Minister "after receiving suggestions for suitable names from each of the universities of the United Kingdom, from the Royal Colleges of Physicians and of Surgeons, from the Royal Society, and from other important public bodies interested in the question". It also included "medical representatives of the four National Health Insurance Commissions, and the other principal Government Departments concerned in medical work". It said, further, that in and after 1916 one-third of the members should retire, their places being filled (whether by reappointment or otherwise) by the Minister; but this provision was varied in the subsequent Regulations.

Statutory regulations

It may be, however, that the whole of the procedure by Minutes of Appointment was in the nature of an administrative short-cut and did not satisfy the requirements of the Act, in that the latter empowered, not "the Minister responsible for National Health Insurance" (Chancellor of the Exchequer), but the Insurance Commissioners. Whatever the reason, the appointment

of the two bodies was re-enacted two months later, without reference to the foregoing and with some amplification of detail, as described below.

Meanwhile, the National Insurance (Joint Committee) Amendment Regulations made by the Treasury on 7 August 1913 had dealt further with the question of the moneys provided by Parliament which might be retained for research under the Act. These Regulations were originally provisional but, needing no amendment, eventually became definitive in effect. They vested solely in the National Health Insurance Joint Committee the power (so far as the terms of the grant by Parliament might permit) of retaining the monies in whole or part for research, and the power to make regulations about the manner in which any sums so retained should be applied for the purpose.

The Provisional National Health Insurance (Medical Research Fund) Regulations were issued by the Joint Committee on 20 August 1913, appointing the Medical Research Committee and the Advisory Council; the latter included one member who had not been named in the earlier Minute. These Provisional Regulations prescribed the periods of office of members of the Medical Research Committee and the Advisory Council, and the method of appointing or reappointing persons into the vacancies. They required the Committee to appoint a Treasurer from among its members, and empowered the Committee to appoint "officers and servants". They required the Committee to prepare schemes of research from time to time, with estimates of expenditure, and on such schemes the Advisory Council was to be consulted. They authorised expenditure for various purposes, including honoraria of approved amounts to members of the Committee other than the Chairman and any who were Members of the House of Commons. They dealt with points of accounting and audit, and with the investment of any sums standing to the credit of the Medical Research Fund. They provided that balances unexpended at the end of the financial year should be carried forward "if the terms of the Parliamentary grant so provide". They prohibited payments to members of the Committee or Advisory Council, other than the honoraria already mentioned and travelling and subsistence expenses incurred in attending meetings. Wherever higher approval was required the power was vested in the Chairman of the Joint Committee; the latter, the Rt Hon. C. F. G. Masterman, MP, was a member of the Government as Financial Secretary of the Treasury and had become "the Minister responsible for National Health Insurance".

On 21 March 1914, the Provisional Regulations were replaced by the National Health Insurance (Medical Research Fund) Regulations 1914. These differed in having two additional clauses enabling the Medical Research Committee to acquire real property (such as the site and building of the 'Central Institute') and providing for the appointment of two members as

Trustees to hold such property, the Committee not being a body corporate. These Regulations may be said to be the definitive constitution of the Medical Research Committee, although the latter had already been operating for several months, and for that reason they are recorded in full (Appendix C).

The first Chairman

A remarkable man was Chairman of the Committee, and of the Advisory Council, for the first three years—and during one of them, before a Secretary took office, performed the executive function as well. John Fletcher Moulton was born in 1844. At Cambridge he was Senior Wrangler in 1868 and became a Fellow of Christ's College. In 1874 he was called to the bar; but he still found time to collaborate with William Spottiswoode in studies of electrical phenomena, and he was elected a Fellow of the Royal Society in 1880. Later he became a Queen's Counsel; he specialised in cases of patent law, where his grasp of technical issues was outstanding. For three short periods he was also a Member of Parliament in the Liberal interest. In due course he became a judge and was knighted; and from 1912 he was a Lord of Appeal in Ordinary, with a life peerage. Lord Moulton was chairman of several official bodies; and in 1914 he was appointed Director-General of Explosive Supplies at the Ministry of Munitions of War. He died in 1921. There is a biography by H. Fletcher Moulton (1922), in a preface to which the first Earl of Birkenhead wrote:

> I was never myself brought into contact with a mind which impressed me more by its brilliancy, scope and power .., no man since the great Bacon has brought to the Bench so consummate a scientific equipment.

After Lord Moulton's retirement from the Committee, the latter paid tribute to him in its Report for 1915-16:

> His unrivalled powers of apprehending the true lines of development in the natural sciences enabled him to give invaluable guidance to the Committee in essential matters from the beginning of their work... . The Committee recognise gratefully that they were able to receive this help at the time when it was most needed.

Early proceedings of the Committee

The Medical Research Committee came into being, without waiting for completion of the formal stages described above, and met for the first time on 24 July 1913. In addition to the Chairman, the two parliamentary members were Dr Christopher Addison, MP, and Major Waldorf (later Lord) Astor, MP. The others were Sir Clifford Allbutt, Regius Professor of Physic in the University of Cambridge; Mr C. J. Bond, a Leicester surgeon with wide

scientific interests; Professor William Bulloch, who held the University of London Chair of Bacteriology at The London Hospital; Professor Matthew Hay, of the Chair of Forensic Medicine in the University of Aberdeen (and Medical Officer of Health, City of Aberdeen); Professor (later Sir) Frederick Gowland Hopkins, of the Chair of Biochemistry in the University of Cambridge; and Colonel (later Lieut.-General) Sir William Leishman, of the Army Medical Service. (The last named has already been mentioned in Chapter I, and several of the others in Chapter 2.)

All the members were present at the first meeting; they had already sent in suggestions, which the Chairman had embodied in a memorandum as a basis for discussion. They met again on the next day, when a broad scheme of research was accepted. Organisation was discussed; and the research field was divided among the six scientific members with a view to their framing proposals.

At this stage the Committee had no premises and no Secretary or other staff. All the earlier meetings were held at the Chairman's house, 57 Onslow Square, South Kensington. The minutes were written by hand (by the Chairman's secretary, it is believed) in a large notebook, which was properly bound at a much later date. The Chairman apparently conducted such correspondence as there was, but little of this survives.

The Committee resumed its meetings on 22 and 23 October 1913, when important decisions were taken. It was agreed that a 'central institute' in London under the Committee's own control was essential; and thought was given to the choice of senior staff to head its departments. The need for a statistical department, and for hospital beds for clinical research, was also noted. Thereafter, meetings were held at weekly intervals and the projects were rapidly developed; these were of course still all in the planning stage, and there was nothing in being which called for administration. By the end of 1913 the Committee had obtained ministerial approval for its initial research programme; and arrangements had been made for members to make individual visits to centres of research throughout the British Isles.

'Central institute'

On 30 October the view that the then so-called 'central institute' must be in London was reaffirmed; the purchase of a house in the country, with grounds in which further buildings could be erected, was considered as a possibility for a later date. At the same meeting it was made known that a building at Hampstead, hitherto used as a hospital, would be available; an option on the property was secured, and within a few months the purchase was completed (Chapter 10). There was some discussion, inconclusive at that stage, on the question of whether part of the building should be used

as a research hospital. Early in 1914 overtures were made by the authorities of the Lister Institute of Preventive Medicine proposing an arrangement whereby it would be taken over by the Committee as the latter's central institute; the negotiations continued for a further nine months before they fell through. Details of this episode are given later as part of a fuller history of what eventually became the National Institute for Medical Research (Chapter 10).

Scientific staff

On 22 October 1913, the question of staff for the central institute was considered and the relevant minute of the meeting reads as follows;

> A staff of skilled observers must be obtained and a careful review made of possible men. At the head of all these should be a Chief Director who should be the best man obtainable at any price. He should have the cooperation of other Heads who should again be men of the highest standing, and all these directors should be given efficient assistants with adequate help.

After the meeting had been adjourned to the following day, it was considered, after some discussion, that Sir Almroth Wright was "the only man satisfying the requirements of such a post" as that of Chief Director. It was also agreed that, in addition to a bacteriologist, the heads of departments should be a biochemist and a physiologist. Names of possible men to fill these posts, including several foreign workers, were mentioned.

On 11 December 1913, it was decided that Sir Almroth Wright was the only possible person for the chief post in the Department of Pathology, and that Dr H. H. Dale and Dr G. Barger would form a good combination to lead the Department of Biochemistry. At subsequent meetings Dr J. Brownlee as Statistician and Dr Leonard Hill as Applied Physiologist were added. Thereafter Dr Benjamin Moore and Captain S. R. Douglas were added as colleagues of Dr Hill and Sir Almroth Wright respectively. A fuller account is given later (Chapter 10). The salaries offered were well above the absurdly low current level for academic posts,

On 30 October 1913, it was agreed that it was also essential that the Committee should have staff available for work in other institutions, and this was apparently with research in clinical medicine particularly in mind. On 5 March 1914, the names of Dr T. R. Elliott and Dr Thomas Lewis were mentioned in this regard (Chapter 11).

After various preliminary approaches and further negotiations, all those proposed for posts in the central institute were in fact appointed to the staff early in 1914. That this did not happen earlier was, at least in some cases, partly due (fide Sir Henry Dale) to a reluctance of the scientific men to

commit themselves until they knew who was to be appointed as Secretary of the Committee. Other reasons were the difficulty in assessing appropriate salaries in an organisation of a completely new type, and the fact that there was as yet no definite provision for pensions or even for security of tenure. The solution of this last problem was contained in a document of some constitutional importance. A letter (of which copies were printed, but marked 'Confidential') was sent on 15 December 1913 by the Chairman of the National Health Insurance Joint Committee to the Chairman of the Medical Research Committee in the following terms:

> You are aware that, technically, the money for Medical Research under the Insurance Act and the Regulations thereunder has to be reserved for that purpose by Resolution of the Joint Committee, and therefore that, strictly speaking, the only money actually available is the money for the first year. But it is, of course, obvious that no scheme of research to be on sound lines and productive of lasting value could be undertaken on a basis rendering the whole thing liable to cessation at the end of any year. And it is clear that your Committee must feel assured of adequate permanence as regards monies devoted either to capital expenditure, spread over a period of years, for the purposes of Central Laboratories and Offices and so forth, or to the remuneration of a suitable staff without which such buildings would clearly be useless; an expert staff requiring, it is plain, a reasonable permanence of employment, for such work, to be effectually undertaken.
>
> Hence, in proceeding to carry out the scheme which I have today approved, you may rest assured that such expenditure as you find it necessary to incur upon what I may call a continuing basis, for a reasonable period of years, will be regarded by me, as Chairman of the Joint Committee, and I am sure by the Chancellor of the Exchequer also, as properly incurred, in spite of the technical difficulty to which I have referred above. And, in such circumstances as these, you need, I am sure, feel no doubt that this view would be upheld and the necessary provision made in any future year, should other Ministers be in our places—i.e., that all reasonable commitments would be continued.

First scheme of research

In November 1913 the Medical Research Committee submitted its first 'Scheme of Research' for ministerial approval. This was done in a minute from the Chairman of that Committee to the Chairman of the National Health Insurance Joint Committee. The scheme, unlike those for later years (Volume Two), was in very general terms and is quoted here in full except for a brief section on immediate requirements:

The Scheme Of Research

Type of Research. The object of the research is the extension of medical knowledge with the view of increasing our powers of preserving health and preventing or combating disease. But otherwise than that this is to be the guiding aim, the actual field of research is not limited and is to be wide enough to include, so far as may from time to time be found desirable, all researches bearing on health and disease, whether or not such researches have any direct or immediate bearing on any particular disease or class of diseases, provided that they are judged to be useful in promoting the attainment of the above object.

Method of Conducting the Research The organisation by which this research will be carried out should consist of the following departments:

(1) A competent body of investigators of the highest class in the permanent employ of the scheme and devoting their whole time to research under it. They would be supplied with proper laboratories, duly qualified assistants, etc., and would ordinarily carry on their researches in such laboratories.

(2) Skilled investigators in the permanent or temporary employment of the scheme who would be engaged in procuring their material clinically or otherwise in connection with hospitals or other institutions furnishing the requisite opportunities for so doing. This material would in some cases be worked upon in local laboratories and in some cases at laboratories provided for them elsewhere under the scheme, and sometimes by a combination of both methods.

(3) Individual investigators not in the employment of the scheme who are carrying on independent investigations of a kind which are suitable to form part of or to be coordinated with the research under the scheme, and to whom it is desirable to give help either in money or otherwise to enable them better to carry on their researches.

(4) *Statistical Department* This will mainly consist of persons in the permanent employment of the scheme who will be engaged in enquiries relating to diet, occupation, habits of life and other matters bearing upon the incidence of disease, and who will collect and deal with all types of vital statistics including the distribution of disease, the relative frequency of special types of lesions in diseases such as Tuberculosis, and in general with all statistical investigations useful either as preliminary to research or confirmatory of its results. It will possibly have to consider and advise how the statistical material provided for under the Insurance Act should be dealt with. It is hoped that when the scheme is in actual work there may become associated herewith a Bureau through which those engaged in research unconnected with the scheme or otherwise working on kindred questions may be able to obtain information, references to special publications and other help of a like nature.

All these four departments are essential to the success of the organisation and are intended to co-operate with one another and will be used separately or together according to the nature of the work in hand. It is neither possible nor desirable to lay down any hard and fast lines of demarcation of their spheres of action.

Thus was the field of operation broadly defined, in terms which could still serve today although they might be amplified in detail. Thus, also, were four methods of promoting research proposed: (1) by maintaining a permanent staff in the Committee's own laboratories; (2) by maintaining permanent and temporary staff for work wholly or largely in hospitals and other institutions not under the Committee's control; (3) by making grants to investigators not in the Committee's employ; and (4) by maintaining a Statistical Department. Except that the fourth is no longer regarded as a separate administrative category, these remain at the present time the principal ways in which research work is supported (Chapter 9).

On 4 December 1913, the Advisory Council met and duly endorsed the Committee's proposals. On 15 December the Chairman of the National Health Insurance Joint Committee signified his approval.

Appointment of a Secretary

At the Committee's meeting on 30 October 1913, consideration was given to the need for an 'Organising Medical Secretary'. By this date spontaneous applications for such a post—which was an obvious necessity—had already been received, but none of the correspondents appears to have been thought worthy of serious consideration; their names are not on record. The contemporary minutes suggest that the future scope and importance of the position had not yet been clearly envisaged. It was usually, but not invariably, thought that the Secretary must be a medical man; but the idea that he must also be a man of experience, and indeed eminence, in research had not yet been assimilated. Hopkins later recounted that someone had suggested a part-time appointment.

A proposal to advertise the post was not pursued. During the next three months two people were tentatively proposed—Dr (later Sir) Andrew Balfour and Sir George Newman—but, on being sounded, these did not wish to be considered for the post; and one member of the Committee, Professor Matthew Hay, was definitely offered the appointment but declined. One may say frankly now that, in the light of later experience, it may be greatly doubted whether any of these three distinguished persons could have brought to the post the appropriate scientific attainments.

On 19 February 1914, it was decided to approach two people, one being Dr Walter Morley Fletcher, a physiologist working at Cambridge, and

the other a man who was a non-medical hospital administrator of repute; but this second possibility was never followed up. It is a matter of record that Fletcher's name was put forward in Committee by Professor Hopkins; but Hopkins later made it known that the suggestion was first made informally to him by Dr T. R. Elliott, although he had then immediately recognised how appropriate it was. Dr Fletcher proved to be interested, and within a very short time a definite offer of appointment had been made to him and he had accepted it. He could not take up full duty until 1 July 1914, but he gave such time as he could during the interval; he was in attendance at meetings of the Committee from 19 March 1914 onwards. The minutes of the Committee from those of the meeting on 2 July 1914 (and for some time afterwards) are in his hand. Soon after he took up whole-time duties an office was obtained in St Stephen's House, Westminster, at a rent of £25 per annum.

The history of the Committee during the first few months of its existence shows how much can be accomplished by a small group of talented men, ably led, willing to meet together as often as once a week and to take individual action at other times. Clearly, however, it was neither an economical arrangement in its use of manpower nor one which could be indefinitely maintained. It may well have had its advantages during the planning stage, when a combination of abilities and a diversity of views would have an especial value. It would inevitably have proved inadequate when the stage of active operation commenced, as it was about to do, calling for decisions from day to day and requiring both a sharp focus for corporate policy and a consistent level of administrative action.

It was indeed high time that the Committee had headquarters of its own, with a permanent official handling its affairs. Not only was there now an undeniable demand for regular administration, but there had already been some disquiet among the members that business was concentrated in the hands of a rather autocratic Chairman—however brilliantly capable—and recorded mainly in his personal papers. The minutes of meetings were merely read out on the next occasion, no copies being provided to members, and this almost clandestine procedure gave rise to misunderstandings. There was even an unhealthy feeling that a few people who knew him best had readier access to the Chairman than had others. Indications of this situation exist in surviving correspondence of only slightly later date (and in an oral tradition within the writer's memory); a letter of Fletcher's mentions that Lord Moulton was very angry about not being offered reappointment in 1916.

The potentiality of the Committee as an instrument of Government must have radically changed when Fletcher assumed whole-time duty as its Secretary. In such circumstances the initiative must pass to the man, assuming him to have the requisite qualities, who is devoting his main energies to

the task and keeping its problems always in the forefront of his mind. The role of the councillor, with primary obligations elsewhere, remains of great importance; but it becomes consultative and critical. More and more, as he gains experience of the special function, must the permanent officer be not only the executant of policy but the main source or medium of new proposals. And as the staff organisation grows he, as its official leader, becomes also the representative of its views to the governing body. That body is no longer alone but forms the apex of a larger entity—a research service—which develops certain corporate characteristics ; and in this the Secretary is naturally the focal point.

That Dr Fletcher—Sir Walter as he became in 1918—had the requisite qualities can never have been in doubt, and was later amply proved by his achievement. He was a man of outstanding personality, about which more is said later (Chapter 17). He had an established reputation as a research worker in physiology; and he quickly displayed a talent for administration, a type of work which he enjoyed.

Yet it was a special type of administration that he developed—and later handed on; a type which was based on an understanding of the peculiar conditions required for successful research work and on sympathy with scientific men. Its means were always subordinated to the end; its methods were adapted to the special type of people with whom it had to deal. It was essentially flexible (Chapter 17).

When Fletcher was absent through illness for some months in 1916, Dr H. H. Dale of the scientific staff and Mr C. J. Bond, a member of the Committee, kept his work going.

The First World War

For an organisation so planned and so served, everything seemed propitious. But, as was said, "the lamps are going out all over Europe", The outbreak of war on 4 August 1914 created an entirely new set of circumstances, and to these the infant organisation had to adapt itself as best it could. In short, the Committee's main task for the next four years was to mobilise the aid of medical science for the national war effort; some account of this is given in Volume Two.

Nevertheless, the normal programme was never wholly submerged; plans already made were put into operation, and indeed often further developed, so far as conditions permitted. The establishment of the central institute had to be deferred, to allow the building to be used for hospital purposes, but the several departments were constituted in borrowed accommodation in other institutions (Chapter 10).

Constitutional changes

On 22 October 1913, the Committee appointed Major Astor, from among its members, to be Treasurer. On 5 March 1914 the Chairman and Treasurer were appointed as Trustees,

On 20 August 1916, the Chairman and two other members of the Committee retired, in fulfilment of the Regulations, and were replaced by others (Appendix H). Major Astor became Chairman and the Viscount Goschen, one of the new members, succeeded him as Treasurer. Two further retirements and replacements occurred in 1918.

Final changes were made in February 1920, with a view to coming events. Two members resigned and three new members were appointed, increasing the total to ten. And on the resignation of Major (by then Viscount) Astor, he was followed in the chairmanship by the Viscount Goschen, and the latter in the treasurership by a new member, the Hon. Edward Wood (later Lord Irwin, eventually Earl of Halifax).

By this latter date, however, a major constitutional change was impending, an account of which will be found in the next two chapters. On 31 March 1920 the Medical Research Committee, as such, ceased to exist. Before then, from 1 July 1919, there had been a transitional period in respect of ministerial responsibility for the Committee's activities (Chapter 4).

End of the Advisory Council

In retrospect it is difficult to be sure what effective function this large and mainly professional body was originally intended to perform, if indeed this was ever clearly envisaged. As already mentioned, it was appointed on a representational basis, whereas the members of the Medical Research Committee (and successor Council) were expressly chosen as individuals. It may have been considered politic to provide a dignified role for representatives of professional, institutional, and departmental interests in the medical field, in order more easily to limit membership of the executive body to persons with special qualifications for controlling scientific work. Or there may have been a reluctance to give too much independence to a small expert body, as yet untried; or perhaps it was thought that an imposing facade was a necessity for maintaining public confidence in the new organisation. Whatever may have been in the minds of the framers of the original constitution, it is clear that at a later date the interposition of such an assemblage between the active body and the responsible ministers would have been regarded as not only superfluous but intolerable.

The history of the Advisory Council—domestically known by the cheerful sobriquet of 'the forty thieves' is soon told. It met on 4 December 1913,

as already mentioned, to approve the first research schemes of the Medical Research Committee; it met again on 17 November 1914, to approve those for the second year. It performed its function of benediction faultlessly on both occasions; it may well have been aided in doing so by the fact that it had the same Chairman as the Medical Research Committee itself, and this was indeed the saving grace of a potentially awkward constitutional arrangement

On 26 May 1915, the members of the Advisory Council received a letter from Fletcher, under direction by the Chairman of the National Health Insurance Joint Committee, forwarding a White Paper on work being done by the Medical Research Committee in connection with the war, and explaining that for the time being the annual submission of schemes of research was thought to be unnecessary. There followed this paragraph:

> Upon the question whether the Medical Research Committee should place their services, together with all the resources under their direction, freely at the disposal of the National Executive in the existing circumstances, Mr Montagu feels assured that there will be no difference of opinion among the members of the Advisory Council, and accordingly he does not propose at this time of strain to summon a special meeting of the Advisory Council, for consultation with regard to the emergency activities of the Committee connected with the war.

Thereafter the body passed into oblivion, apart from the somewhat equivocal memorial given to it in this chapter, and apparently no steps were taken to reappoint or replace the members in 1916 as the Regulations required. On 31 March 1920 it ceased to have even a notional existence. No question of replacing it seems ever to have been raised in discussion of the reconstruction next to be considered (Chapter 4).

Chapter 4

Reconstruction Period (1918–1920)

General situation—Proposed Ministry of Health—The Department of Scientific and Industrial Research—The Machinery of Government Committee—Ministry of Health Act igig—The scientific independence of medical research—Some founding fathers

General situation

The approaching end of the First World War (1914-18) was the signal for replanning in many branches of public activity. Some things had disappeared and others were recognised as obsolescent; new needs had become apparent and a spirit of change was in the air. 'Reconstruction' was the slogan.

It might have been thought unnecessary to make any change in respect of a body so new as the Medical Research Committee, and as yet so untried under the normal conditions of peace. On the other hand it might in any event have been considered desirable to take the opportunity of providing a more appropriate link with the Government than through the organisation dealing with National Health Insurance, an arrangement derived from the manner in which the Committee came to be established (Chapter 2)—an accident of birth, so to speak—rather than from any fundamental rationalisation. The question in fact arose inevitably as a side-issue of proposals of wider import.

Proposed Ministry of Health

A major item in the proposals for reconstruction was the creation, unsuccessfully mooted on previous occasions, of a Ministry of Health in place of the old Local Government Board—this was for England and Wales, but with a corresponding change for Scotland. Among other things, it was proposed that the new Ministry should take over, from Commissioners under the Treasury, responsibility for National Health Insurance in England and Wales. In the absence of special provision to the contrary, therefore, the Medical Research Committee would have found itself automatically transferred to the jurisdiction of the Ministry.

To some this appeared to be a logical and obviously proper arrangement—such is the compelling power of names! There were, however, some very serious objections. Firstly, the powers of the Ministry were limited to England and Wales, whereas the Committee's functions related to the whole of the British Isles; and it had indeed already operated overseas

during the war. Secondly, the Ministry had functions covering only a part of the medical field. For example, health in industry was the responsibility of the Home Office; and until a much later date the Ministry had little direct concern with curative, as distinct from preventive, medicine. The Committee, on the contrary, was charged with the promotion of research relating to all aspects of health and disease. Thirdly, a large administrative department necessarily has certain declared policies and urgent day-to-day requirements, both tending to create pressures of a kind inimical to the initiative and perspective essential for long-term research. In contrast, the Committee had already achieved independent power, in its scientific discretion, to frame and execute its programme for the advancement of knowledge; even a suspicion of bureaucratic control or political expediency would have destroyed the Committee's authority and have lost it the sympathetic cooperation of scientific men.

The Department of Scientific and Industrial Research

Another factor in the situation was that by an Order in Council of 28 July 1915, two years after the original appointment of the Medical Research Committee, there had been established a Committee of Privy Council for Scientific and Industrial Research; and this provided a precedent for an appropriate form of ministerial control over a research organisation expending public funds. After a few months during which administrative action was taken within the Board of Education, a separate Department of Scientific and Industrial Research was established in 1916. It was soon given charge of two organisations of earlier date: the Geological Survey, founded in 1835, Was transferred from the care of the Board of Education to that of the Department, on the recommendation of the Reconstruction Committee; the National Physical Laboratory, founded in 1899, was placed under the financial control of the Department, although the Royal Society continued to be closely associated with its scientific administration.

The Department, although separate from any other, had no Minister entirely its own. Ministerial responsibility was in commission, so to speak, in the hands of the Committee of Privy Council. The members of this body were ministers serving ex officiis; the Lord President of the Council was Chairman, and the others were the heads of the departments chiefly concerned with science and industry. Such a committee—the device was an old one—was not designed to hold meetings; in practice the Lord President, as chairman, became the minister responsible to Parliament, consulting his colleagues as he thought necessary.

The internal constitution of the Department, brought into being in 1916, was less happily conceived. Its scientific body was an Advisory

Council, with no formal authority over the executive; all action was taken in the name of the Committee of Privy Council.

Moreover, the Department was staffed by administrative civil servants, of whom—at least at the senior level—few had a scientific background and none had research experience. It is significant that subsequent reforms were in the direction of assimilation to the pattern adopted for medical research (and later for agricultural research). It was, however, not until 1927 that a man of science became Secretary of the Department, although he had been deputy for some years, and not until the passage of the Department of Scientific and Industrial Research Act 1956 that the former Advisor Council became a Scientific and Industrial Research Council with executive control. Further changes are mentioned later (Chapter 8). The origins of the Department have recently been discussed by McLeod and Andrews (1970).

The Machinery of Government Committee

In July 1917, a Machinery of Government Committee was appointed by Lloyd George as a subcommittee of the Reconstruction Committee; both it and the parent body were very shortly afterwards transferred to the jurisdiction of Addison on his appointment as Minister of Reconstruction. It was a small body of distinguished membership, under the chairmanship of Viscount Haldane, and its terms of reference were "To enquire into the responsibilities of the various Departments of the central executive Government, and to advise in what manner the exercise and distribution by the Government of its functions should be improved". The members included Morant, Sir George Murray of the Treasury, Mrs Sidney (Beatrice) Webb and three Members of Parliament, with Michael Heseltine as secretary. The proposal to set up this body was initiated by Mr E. S. Montagu, Financial Secretary to the Treasury, in a memorandum of 30 April 1917, presented in circumstances discussed by Daalder (1963); but Haldane, in his autobiography, claims to have prompted it. According to Lord Bridges (1959), referring to the memorandum just mentioned:

> Montagu seems first to have suggested that the Privy Council should be the centre for all research activities of Government. Haldane disagreed. He thought that the Lord President would be too busy with other things.

This Committee reported in 1918, devoting a chapter to "Research and Information". In this it recommended "that increased importance should be attached to the organisation of enquiry and research, and that the activities of the central Government in this direction should be extended". It proceeded to consider intelligence work in, and research work supervised

by, administrative departments, contrasting these particular functions with intelligence and research work for general use. For the latter it held that special arrangements were essential, and it found that those already made for the Department of Scientific and Industrial Research were appropriate:

> The establishment in 1915, under the Lord President of the Council, of a new Department to develop and organise the knowledge required for the application of Science to Industry, to keep in close touch with all Departments concerned with scientific research, to undertake researches on behalf of Departments, and to stimulate the supply of research workers, marked a stage in the recognition of a need which is not merely local or departmental, but national, and there is in our opinion good reason for extending what has been done here to other fields in which thinking is required in aid of administration.
>
> A Cabinet with such knowledge at its disposal would, we believe, be in a position to devolve, with greater freedom and confidence than is at present the case, the duties of administration, and even of legislation. . . . We may here add that the gradual introduction of the co-operation of the Ministers of the Dominions in affairs which belong to a Cabinet now charged with the interests of the Empire as a whole, points to the probability that the organisation of the kind of knowledge we have in view is likely to become requisite in new directions.

Citing as a model the direction of the Department of Scientific and Industrial Research by its own Committee of Privy Council, the report states:

> As regards the methods to be adopted for conducting enquiry and research in any branch of knowledge, so far as it is determined that the work should be carried out under supervision of a general organisation, and not under that of an administrative Department, we think that a form of organisation on the lines already laid down for Scientific and Industrial Research will prove most suitable.

It is therefore not surprising that a similar constitutional position was thought desirable for the organisation concerned with medical research. Speaking of the Medical Research Committee, as it existed, the report says:

> It is important, also, to observe that, although the Minister in charge of an administrative Department is answerable to Parliament for the work of the Committee, we have of set purpose, and for two clear reasons, classified the Committee as a service of a general character, and not as a body engaged upon research for the immediate purposes of a single administrative Department.

> The first reason is that, although the operations of the Medical Research Committee are within the province of the Minister responsible for Health Insurance, so that he would defend the proceedings of the Committee if they were criticised in Parliament, in practice, as we understand, the Minister relies, under the arrangements described in paragraph 37, upon the Medical Research Committee to select the objects upon which they will spend their income, and to frame schemes for the efficient and economical performance of their work. The Minister has, of course, always received a full explanation of their schemes from the Committee before giving his approval, but he has never sought to control their work, or to suggest to them that they should follow one line of enquiry rather than another.
>
> There is, therefore, an important distinction to be drawn between this research work and all other work within the sphere of the Department; and the judgement of the scientists who form the majority of the members of the Medical Research Committee as to the value of this understanding is clear. In their first Annual Report (1914–15, Cd. 8101, page 48) the Committee say that they 'venture to acknowledge their indebtedness to the three successive Chairmen of the National Health Insurance Joint Committee under whom they have worked, for having allowed them the most complete freedom, within their constitution, to bring flexible and rapid assistance to the national need on occasions of emergency with the least possible delay in the motion of constitutional machinery.
>
> The second reason is that the Committee had not long been established before the outbreak of war in 1914; and that, as their four Annual Reports clearly indicate, they have, in consequence, from the first devoted almost the whole of their energies to the investigation of problems arising out of war conditions, and referred to them by administrative Departments, including the Admiralty, War Office, Air Ministry, Home Office and Ministry of Munitions, for the purpose of concentrating the whole of the scientific forces available in the country upon the search for a solution.

The actual recommendation in respect of the Medical Research Committee, after agreement that all the other powers and duties of the English and Welsh Insurance Commissions should pass to the proposed Ministry of Health, was:

> The operations of this Committee have never been limited, as would presumably be the case with the new Ministry of Health, to England and Wales, but have extended over the whole United Kingdom. We think that it is essential to make provision for enabling the work to be continued on the same lines, so as to secure the fullest dissemination of its results, and the best use of the limited funds available for it.

> For these reasons, and on the grounds which are set out in the Chapter of this part of our Report dealing with Research and Information, we recommend that, on the establishment of the Ministry of Health, the Medical Research Committee should be reconstituted so as to enable it to act under the direction of a Committee of the Privy Council on the lines already followed in the case of the Committee of Council for Scientific and Industrial Research.

While stressing the advantage of the Privy Council formula, the report ends the particular chapter on a warning note. It was envisaged that a multiplication of research organisations on this footing might place too heavy a burden on the Lord President, whose other duties often included the leadership of the House of Lords. The eventual formation of a number of such organisations was thought to be not unlikely:

> It may, therefore, not be premature to anticipate that the distinctive character of the organisation of Intelligence and Research for general use; the proper scope of such an organisation; and its potential relations with analogous organisations throughout the Empire, could thenceforth all be maintained by a Minister specifically appointed on the ground of his suitability to preside over a separate Department of Intelligence and Research, which would no longer act under a Committee of the Privy Council, and would take its place among the most important Departments of Government.

The extent to which these words proved to have been prophetic will be seen later (Chapters 6, 8).

Ministry of Health Act 1919

The recommendation was accepted and the necessary legislative provision inserted in the Ministry of Health Bill. The reasons given in the Report of the Machinery of Government Committee were elaborated—although some paragraphs are identical—in a memorandum prepared by, or under the direction of, Addison in his capacity as Minister of Reconstruction. This memorandum was apparently available in 1918 to those who were then drafting the Bill, and also to the professional bodies consulted about it, although it does not seem to have been made public at that date.

The paragraph emphasising the dangers inherent in control of the research organisation is notably frank and cogent:

> A progressive Ministry of Health must necessarily become deeply committed from time to time to particular systems of health administration. The Minister of Health at any moment may be appointed by the Government on the ground that he is

> something of a scientist or takes a special interest in health matters. One does not wish to attach too much importance to the possibility that a particular Minister may hold strong personal views on particular questions of medical science or of its application in practice; but, even apart from special difficulties of this kind, which cannot be left out of account, a keen and energetic Minister will quite properly do his best to maintain the administrative policy which he finds existing in his Department, or imposes upon his Department during his term of office. He would, therefore, be constantly tempted to endeavour in various ways to secure that the conclusions reached by organised work under any scientific body, such as the Medical Research Committee, which was substantially under his control, should not suggest that his administrative policy might require alteration. The more active the administration of his Department the greater this danger becomes. It is essential that such a situation should not be allowed to arise, for it is the first object of scientific research of all kinds to make new discoveries, and these discoveries are bound to correct the conclusions based upon the knowledge which was previously available, and, therefore, in the long run to make it right to alter administrative policy.

Nevertheless, during the debate on the Second Reading of the Bill in the House of Commons on 25 February 1919, there were Members who suggested that it would be preferable to place the Medical Research Committee under the direct control of the Minister of Health rather than, as implied in the Bill, to reconstitute it so as to enable it to act under the direction of a Committee of Privy Council. The reasons for the proposal in the Bill were explained by Astor, in his capacity as Parliamentary Secretary to the Local Government Board; and the President of the Board, Addison again, circulated a White Paper giving the text of the memorandum mentioned above. This important historical document was later reproduced in the Report of the Medical Research Council for 1950-51, as an appendix to an obituary appreciation of Addison.

The Government view prevailed, and the Ministry of Health Act 1919 became law with the particular provision included; and the provision came into operation on i April 1920, by virtue of an Order in Council of 9 February 1920 (Appendix D). There had, however, been an anomalous transitional period in respect of ministerial control, owing to the fact that related provisions of the Act had been brought into operation on 1 July 1919, by an Order of 25 June 1919. The effect was that the powers of the Insurance Commissioners were transferred to the Minister of Health as from 1 July 1919, but that the proviso excluding the power to retain sums for medical research remained in abeyance; and also that the provision of the National Insurance Act 1911 creating that power was not yet repealed. As a result, the Minister of Health replaced the Chairman of the National

Health Insurance Joint Committee as the responsible minister during the nine months from 1 July 1919 to 31 March 1920.

The scientific independence of medical research

Before the new constitutional position had been achieved, there had been other threats to the independence of medical research than that of attachment of the agency to a large administrative department. The existence of the Department of Scientific and Industrial Research created the hazard that empire-building or uninformed logic might exert pressure for the creation of a single research organisation in which that for medical research would be merged; some such moves were indeed tentatively made behind the scenes. Amalgamation would have meant subordination for the smaller body, and this would have been disastrous. Not only did the Department, in those days, suffer from the disabilities mentioned above, but these and associated factors seriously delayed the time when it could command the full confidence of the scientific world. Moreover, it was especially concerned with 'applied' research directly bearing on industrial needs; and the nature of this work involved a high level of expenditure and the establishment of large research stations, which were staffed by scientific civil servants and not associated with universities. The needs of research aimed at medical discovery were quite different. Close consultation and collaboration between separate organisations was another matter, and this was in due course amicably and fruitfully achieved (Chapter 7).

There was, alternatively, a proposal to bring both research councils, and probably other agencies, into juxtaposition under a single Committee of Privy Council, with the Lord President as its Chairman. This Committee was to have a central secretariat for finance, which would undoubtedly have been the embryo of a 'Department for Research', a term which was actually used in contemporary discussion. There was also some talk in the Treasury of a 'Ministry of Research', and it has been noted above that the Report of the Machinery of Government Committee did indeed provide some basis for this. There was, however, strong objection on the part of the Ministry of Agriculture and Fisheries to yielding its control of research in these two fields, and this may have had force against the idea of a unified research organisation.

Looking back, one finds it hard to believe that the Medical Research Council could have built up its present reputation and strength of position had it not enjoyed the fullest measure of independence during its formative period.

Some founding fathers

It has been seen that David Lloyd George (1863–1945) can be acclaimed as the father of the Medical Research Committee, whether the original idea

was his own or that of some unsung hero among his parliamentary and official helpers (Chapter 2). Two statesmen, Haldane and Addison, and one outstanding official, Morant, may be named as the godfathers who particularly sponsored the Committee's reincarnation as the Medical Research Council. There are, of course, biographies of these men, but none is satisfactory from the angle of the present work ("Addison did nothing to deserve so bad a biography", as Gilbert has said).

First w'as Lord Haldane, who presided over the Machinery of Government Committee ('Haldane Committee') and claimed to have drawn up its report himself (in a letter to Mr Ramsay Macdonald, cited by Gilbert). To him, therefore, the Council was in large measure indebted for its extra-departmental status and for the attachment to the Privy Council that fostered its independence of action during the formative years. The career of one so well known as Richard Burdon Haldane (1856-1928) needs only the briefest mention here—graduate of Edinburgh and Gottingen, philosopher, lawyer, parliamentarian, eventually an outstanding Secretary of State for War and finally Lord Chancellor. It was said of him by Sir Henry Tizard: "He was the kind of Minister under whom scientists rejoice to serve; constant in support, imaginative and helpful in his understanding". On the same authority, he was the "consultant and strong supporter" of the President and Parliamentary Secretary of the Board of Education when they were launching the Department of Scientific and Industrial Research in 1915. Tizard also records that when Haldane went up in a military dirigible balloon, quite a risky thing in those days, he declined to exchange his top hat for the indignity of a flying helmet.

Then there was Christopher Addison (1869–1951), who played a number of roles in the early days of the Committee and Council— and again much later. He was a Doctor of Medicine of London University and a Fellow of the Royal College of Surgeons of England; he became Professor of Anatomy at Sheffield and later held teaching posts in London medical schools. He then turned to political life, and from 1910 was intermittently a Member of Parliament, first in the Liberal and later in the Labour interest. There is no good evidence to support statements that he had a hand in drafting the research provision in the National Insurance Act 1911 (Chapter 2); but he was a member of the Departmental Committee on Tuberculosis (Chapter 3), and thereafter an original member of the Medical Research Committee. In 1914 he became Parliamentary Secretary of the Board of Education and was concerned in the establishment of the Department of Scientific and Industrial Research. In 1915 he became Parliamentary Secretary of the Office of Munitions, and in 1916 Ministry of Munitions of War; there he was concerned with setting up the Health of Munition Workers Committee,

which was a precursor of the part of the Council's organisation dealing with problems of industrial medicine.

In 1917 Addison was appointed Minister in charge of Reconstruction; the Committee on the Machinery of Government came within his sphere, and likewise the first move towards implementing its recommendations on the future of the organisation for medical research. That question fell even more directly within his responsibility from 1919, when he became President of the Local Government Board for its closing days and then the first Minister of Health. He wrote in his memoirs (1924) that "it was tempting, and it would have been easy, to have brought the Research Committee wholly under the Ministry of Health . . . but it would have been a narrow and mistaken course". That view he actively supported, both in the memorandum already mentioned and in piloting the Ministry of Health Bill through Parliament. He became Lord Addison in 1937 (Viscount in 1945), and when his party later came into power he held various high offices, including that of Lord President. Of his impact on the Council when he returned to it as Chairman in 1948, and was afterwards also its minister, something is said later (Chapter 17).

Sir Robert Morant was described by Addison as "a magnificent and ruthless hustler . . . great in mind as well as in body", and by Sir Harold Nicolson as a "supreme Civil Servant". Sir Laurence Brock, who had served under him, said that "Morant was a great man, the only great man in the Civil Service in our lifetime". Beatrice Webb wrote that he was "the one man of genius in the Civil Service ... a strange mortal, not altogether sane". He also had some detractors, colleagues with whom he had violently differed and writers taking views from them; Violet Markham wrote in measured rebuttal of their denigrations. Morant was described by Lord Salter (1961) as:

> Perhaps the most remarkable civil servant of his day. ... A man of magnetic presence, tall and with a great leonine head of white hair, he combined dynamic energy with an excitable and nervous temperament. He pursued an undeviating purpose through perplexing and subtle methods, due partly perhaps to the fact that as a young man he had tutored the sons of the King of Siam and absorbed some of the traditions of court intrigue in Bangkok.

Sir Lewis Selby-Bigge, another colleague, wrote in the *Dictionary of National Biography:*

> His premature death, in London, 13 March 1920, left the Civil Service with the feeling that it had lost one of the greatest figures it had ever produced— great by both character and achievement.

Robert Laurie Morant (1868–1920) entered the Civil Service at a later age than was usual, having—after leaving Oxford (New College)—spent some years in various forms of educational work at home and abroad. By 1903, at the age of thirty-five, he had become Permanent Secretary of the Board of Education; and he exercised more than the usual influence of an official in moulding the reforms then being undertaken by the department, notably with regard to the medical inspection and treatment of school children. Despite statements to the contrary, he was not concerned with the National Insurance Act 1911 before it became law (Chapter 2); but in 1912 he was appointed Chairman of the new National Health Insurance Commission (England), and he also became Deputy Chairman (to a minister) of the National Health Insurance Joint Committee. He served as a member of the Machinery of Government Committee. In 1919 he became the first Permanent Secretary of the Ministry of Health. In these capacities he played a great part in shaping the Medical Research Committee and its successor.

Sir George Newman, who was his medical colleague at the Ministry of Health, wrote in 1939 of Morant: "It is safe to say that no Civil Servant in our national history has made a more permanent or constructive contribution to the administration of Public Medicine and its application to the well-being of the Nation." Newman seems to give more credit to Morant than to Haldane (see above) for the report of the Machinery of Government Committee, saying that it enshrines "many Benthamite and Morantian views" and "was the last but one of Morant's constructive efforts". He also refers to Morant's work in implementation of the National Insurance Act 1911 "and its medical research clauses and their administration" (there was only one such clause); and in this regard, Newman remarks on Morant's ability to get much action out of little legislative sanction:

> He made the fabric of the school medical service grow out of half a dozen lines in a second class measure, which passed Parliament in the late summer of 1907; and out of an obscure clause in the National Insurance Bill he drew forth the fertile inspiration of the Medical Research Committee. [And on this latter point Selby-Bigge may again be quoted: "Morant had more at heart the wide potentialities, realised in the European War, of the system of national aid for medical research, founded in 1913 on principles which he elaborated . . ."]

The Council paid a tribute to Morant in its Report for 1919-20, after his untimely death on the eve of its own reconstitution:

> To him in great part was due the original constitution of the Medical Research Committee ... and the formation of the Medical Research Fund for the United

> Kingdom as a whole, and ... in these he used all his powers of constructive wisdom to secure the best intellectual freedom for the Committee.

At the Ministry of Health he was directly concerned with the establishment of the Connate of Privy Council for Medical Research, and for constituting the Medical Research Council under its direction; the Report continues:

> In this again he showed his concern for the best interests of medical research and for the promotion of the service it has to give to the State. . . . The Council will meet the new responsibilities and opportunities that lie before them in the future fittingly indeed if they can bring to their work a conception of public duty as high as his, and some measure of the eagerness and breadth of his intellectual vision.

That last sentence reflects the sincere esteem in which Morant was held by Fletcher as a staunch ally in the pursuit of ideals that they had in common; the regard was undoubtedly reciprocated. Although this section deals with people who helped from outside, it is well to remember how much Fletcher himself contributed from within to the reconstruction; but of him much is said later (Chapter 17).

Chapter 5

Establishment of the Medical Research Council (1920)

Provisions of the Ministry of Health Act—Appointment of the Committee of the Privy Council for Medical Research—Incorporation of the Medical Research Council—Provisions of the Royal Charter—Replacement of Trustees—-The constitution in practice—Membership of the Council—Functions of the Chairman and Treasurer—Secretary and staff—Financial control

Provisions of the Ministry of Health Act

As has been seen, the Ministry of Health Act 1919 provided the statutory basis of a reconstituted agency for medical research (Chapter 4). Under this measure a Ministry of Health replaced the Local Government Board in England and Wales, corresponding changes being made in Ireland by the same Act and in Scotland by the Scottish Board of Health Act 1919. The four bodies of Insurance Commissioners ceased to exist, and most of the powers of those for England and for Wales were transferred to the new Ministry by Section 3(1) (b) of the Act.

Proviso (i) to that Section, however, excluded from the transfer "the power conferred on the Insurance Commissioners by the proviso to Sub-Section (2) of Section 16 of the National Insurance Act 1911, of retaining and applying for the purposes of research such sums as are therein mentioned". It went on to enact that "the duties heretofore performed by the Medical Research Committee . . . shall be carried on by or under the direction of a Committee of the Privy Council appointed by his Majesty for that purpose". Section 11(2) and the Second Schedule repealed the above cited provision of the earlier Act, thus divorcing the finance of medical research from the National Insurance scheme.

The proviso also enacted that "any property held for the purpose of the former Committee shall ... be transferred to and vested in such persons as the body by whom such duties as aforesaid are carried on may appoint, and be held by them for the purposes of that body"; but in the event the Council became a corporation capable of holding property. The reference to a body which would carry on the duties is curiously oblique; relegation to an expert executive body was, in fact, the only practicable formula. In effect there was complete continuity and the Medical Research Committee was de facto succeeded by the Medical Research Council.

The implementation of the Act required certain further instruments—namely, a series of Orders in Council and a Royal Charter, and in the first place an Order in Council of 9 February 1920 appointed 1 April 1920 as the date of the commencement of the Act for the particular purpose, in circumstances already detailed (Chapter 4).

Appointment of the Committee of the Privy Council for Medical Research

The Committee of the Privy Council was appointed by an Order in Council of 11 March 1920 (Appendix D), naming as members: the Lord President of the Council, the Minister of Health, the Secretary for Scotland and the Chief Secretary for Ireland. The Minister of Health was to preside over the Committee in the absence of the Lord President; the latter was, by implication, to be Chairman. It was also ordered that the Secretary of the Medical Research Council for the time being was to be the Secretary of the Committee of the Privy Council.

Further provisions of the Order were that the Committee of the Privy Council "may out of moneys provided by Parliament or otherwise available, and subject to such conditions as the Treasury may prescribe, furnish the Medical Research Council with such funds as may be necessary"; that the Committee "shall in every year cause to be laid before both houses of Parliament a report of their proceedings and of the proceedings of the Medical Research Council during the preceding year"; and that the Committee "shall exercise and perform in relation to the [Medical Research] Council such powers and duties as in the Charter aforesaid they shall be authorised and empowered to exercise and perform" (see next page).

Incorporation of the Medical Research Council

Throughout the reconstruction discussions it was assumed that there was to be such a body as the Medical Research Council, whatever its point of attachment to the machinery of state. The first essential was clearly to create a body that could carry on the work of the Medical Research Committee. The change of title from 'Committee' to 'Council' was of secondary significance.

The Medical Research Council was first named, so far as formal instruments are concerned, in the Order in Council of 11 March 1920 appointing the Committee of the Privy Council (see preceding section). In its preamble the relevant passage reads:

> And whereas for the purpose of securing the continued performance of the duties heretofore performed by the Medical Research Committee a Petition has been presented to His Majesty in Council by the Minister of Health praying for the grant of a Charter of Incorporation to the present members of the Medical Research

> Committee, under the style and title of the Medical Research Council, to act under the direction of the Committee of the Privy Council to be appointed by His Majesty for that purpose.

An Order in Council of 25 March 1920 (Appendix D) approved the draft of a Charter "for creating the Members of the Medical Research Committee a Body Corporate under the style and title of 'The Medical Research Council'." The draft was appended, and the Charter was granted in terms of it on i April 1920 (see next section and Appendix E).

So, on the latter date, the Medical Research Council came into being with the same members as the predecessor Medical Research Committee, sitting round the same table and performing the same functions. Its title had changed; it had become a corporation; and there was a new formula for its direction at ministerial level. Although it followed the model of the Department of Scientific and Industrial Research in coming under the jurisdiction of a special Committee of the Privy Council, the Medical Research Council differed from the Advisory Council of that Department in having executive powers and controlling its own administration; therein lay the novelty, and as the Council said in its Report for 1919–20, "the privileges and responsibilities with which the terms of their Charter have endowed them . . . are such as they think have not been given before to any body of scientific men".

Provisions of the Royal Charter

From what has been said, it will be clear that the new double-tiered organisation had no statutory terms of reference except of the most general kind. Its function, as stated in the Ministry of Health Act 1919, was to carry on "the duties heretofore performed by the Medical Research Committee". As the money simultaneously ceased to be retained in accordance with the original formula, the statutory basis for which was in fact repealed, the Act of 1919 apparently implied that the duties covered the expenditure of money to be provided by Parliament in some other way; and, further, that the field of research was no longer even theoretically subject to definition in the context of the Act of 1911.

As has been seen, the Order in Council of 11 March 1920 determined the membership of the Committee of the Privy Council, who was to preside, and who was to be its Secretary. It also implicitly approved delegation to the Medical Research Council, which it mentioned by that name. The Order, further, empowered the Committee to 'furnish' the Council with funds, and instructed it to lay a report annually before Parliament. All the other specific powers and duties of both bodies are derived from the Charter of i April 1920, incorporating the Council. This instrument is therefore of chief

importance, and its provisions must be summarised here although the full text is given later (Appendix E). For the purposes of the present chapter the original form is followed, subsequent changes being left for separate consideration (Chapter 6 and Appendix E).

The preamble states that the instrument of incorporation was "for the purpose of securing the continued performance of the duties heretofore performed by the Medical Research Committee and with a view to facilitating the holding of, and dealing with, any money pro\4ded by Parliament for medical research, and any other property, real or personal, otherwise available for that object, and with a view to encouraging the making of gifts and bequests in aid of the said object". This is the nearest approach to terms of reference that the Medical Research Council has.

The ten members of the Medical Research Committee, listed by name, were to "be one Body Corporate under the name of'The Medical Research Council', having a perpetual succession and a Common Seal". The general powers granted were those usual for a corporate body of the kind: the Council was empowered to sue and be sued; to enter into contracts or agreements (subject to the direction of the Committee of the Privy Council); to accept, hold, and dispose of, money and other personal property; to accept trusts; and "to do all other lawful acts whatsoever that may be conducive to or incidental to the attainment of the objects for which the said Committee of Our Privy Council has been appointed, and the said Medical Research Council is hereby established". The Council was empowered to acquire and hold real property in the United Kingdom "not exceeding in the whole the annual value of jf 50 000" (amount subsequently increased); and other persons or bodies were authorized to transfer real property to the Council within the stated limits of value.

It was implicit that the number of members of the Council should remain at ten, as there was provision only for replacements. Three members of the Council were to retire on 30 September 1921, and at intervals of two years thereafter; but they were to be eligible for reappointment. Vacancies were to be filled by appointment by the Committee of the Privy Council, but any appointment to fill a casual vacancy was to be only for the remainder of the period of office of the member replaced. Two members were at all times to be members of the House of Lords and of the House of Commons respectively; and the other members were to be appointed after consultation with the President of the Royal Society and with the Medical Research Council—implying that they were to be chosen in respect of their personal scientific qualifications but in fact two of those named as original members were members of the House of Commons and only seven were scientific. Members of the Council who were not members of either House of Parliament might be paid such honoraria as the Committee of the Privy Council directed. The Council was to appoint one of

its members to be its Chairman and one to be its Treasurer, subject to the approval of the Committee of the Privy Council.

The Council was to appoint a Secretary; and it was empowered to appoint "other officers and servants", and to expend money for its administrative purposes, provided that the number of such staff, their rates of remuneration, rates of allowances, and the amount of money expended were approved by the Committee of the Privy Council, More generally, in expending moneys provided by Parliament the Council was to act in accordance with directions given from time to time by the Committee of the Privy Council, Property vested in the Council, or the proceeds of sale of such property, was to be held in such manner as the Committee of the Privy Council might approve, subject to the conditions of the Charter and of any relevant trust. The Council's accounts were to be made up for each financial year ending on 31 March and were to be audited in such manner as the Treasury might direct.

The Council was empowered to amend the Charter by Special Resolution, for which the procedure was prescribed, subject to the amendments being allowed by the Committee of the Privy Council.

Articles 2, 3, 6, 7, 11 and 12 (see Appendix E) of the Charter closely followed, mutatis mutandis, the corresponding provisions made for the Medical Research Committee in the Regulations governing its constitution. The points of similarity relate to the retirement of members in rotation, the filling of vacancies in membership, the appointment and duties of a Treasurer, the power to appoint officers and servants, the payment of honoraria to scientific members, the payment of allowances and expenses, the keeping of accounts and the manner of audit.

Replacement of Trustees

One formal step was still required to complete the new constitutional arrangements. The property of the Medical Research Committee, which was not a body corporate, had been held by two Trustees (Chapter 3); but the Act of 1919 had provided for its transfer. Accordingly, an Order of the Committee of the Privy Council, dated 5 July 1920, ordered "that the Medical Research Council be the body of persons to and in whom the property formerly held for the purposes of the Medical Research Committee is transferred and vested in pursuance of the said proviso".

The constitution in practice

The whole implication of the formal constitution just described— and of the discussions leading up to it, and the precedent provided by the earlier

arrangement—was that the Medical Research Council should be a mainly expert body with the greatest possible freedom, in the exercise of its scientific discretion, to promote research for the improvement of human health. Its activities were not to be restricted by territorial or departmental limitations of function, and its policy was not to be subject to the pressures of day-to-day expediency. It was to be under ministerial direction only of the most general kind, relating mainly to matters of its own administration and of the financial provision which Parliament would be asked to make.

The Council's point of attachment to the machinery of state, and the form of this attachment, were designed to provide these conditions. A Committee of the Privy Council is a convenient formula for representing a wide field of governmental interest. At the same time, such a body tends to meet rarely, if ever: there was in fact only one meeting of the Committee of the Privy Council for Medical Research in all the years of its existence, and there is no formal record of the proceedings on that occasion. The extent to which the other members of the Committee were consulted depended largely on its Chairman; it was commonly restricted to matters requiring formal Orders of the Committee, and to the annual report for presentation to Parliament.

For the rest, ministerial responsibility devolved on the Lord President of the Council as Chairman of the Committee. That he was likewise Chairman of the other Committee of the Privy Council exercising similar jurisdiction in a different scientific field (further bodies being added later) had the advantage of bringing analogous activities into the same focus at ministerial level. The interests of research were thus represented in the Cabinet by an important minister, and one who was not involved in the particular policies of any large administrative department. The Lord President was likewise the minister responsible to Parliament, with the minor disadvantage that he was usually in the House of Lords and therefore not personally available to answer questions in the House of Commons. As he had not a junior minister specially allotted to him, this function was apt to fall to some other minister, often a Government Whip; eventually the duty was assigned, as a standing procedure, to the Minister of Health—an arrangement not wholly free from ambiguity as between his departmental function and his membership of the Committee of the Privy Council for Medical Research. (For the change in these arrangements made in 1961, see Chapter 6.)

A significant item in the formula was that the Secretary of the Medical Research Council, appointed as such by the Council itself, was Secretary of the Committee of the Privy Council. This meant that, for the particular purpose, he was the senior permanent official of the responsible minister; he thus formed the link between the two tiers of the organisation, with a constitutional role in each. It meant, further, that any correspondence of

the Committee of the Privy Council, unless conducted at ministerial level, would emanate from the address of the Medical Research Council. In consequence, although the minister naturally had the assistance of his personal staff", these officials could not act in the name of the Committee of the Privy Council; nor had they any jurisdiction over the Medical Research Council or its staff. In practice, most of the external relations of the Medical Research Council were conducted in its own name, that of the Committee of the Privy Council being seldom invoked.

Membership of the Council

The appointment of members of the Medical Research Council was a function of the Committee of the Privy Council, and it was effected on each occasion by a formal Order of the Committee. Appointment of members other than those to be drawn from Parliament had to be made after consultation with the President of the Royal Society and with the Medical Research Council itself. In practice the consultations were usually made by the Secretary of the Committee of the Privy Council before submission of names to the minister, and the Council was consulted first. The initiative in proposing names lay with the Council, and this ensured that the choice would be made on scientific grounds and without the embarrassment of nominations resulting from pressure by professional, institutional or departmental interests. The required concurrence of the President of the Royal Society ensured that the appointments would be agreeable to independent scientific opinion, and the proposals thus doubly supported were always accepted. This principle and practice were of the highest constitutional importance for preserving not only the Council's status as an independent scientific body but also its general acceptability in that role.

The Council's choice of new members has been based on the principle that members serve as individual scientific counsellors and not as representatives of the institutions to which they belong. Among those serving at any time, a certain geographical spread within the United Kingdom is considered to be expedient; it is convenient to have several London members but undesirable that this element should unduly predominate. In particular, the aim has always been to have at least one member from Scotland, and there have sometimes been more. As the Council's constitution has sometimes been taken as a model for use elsewhere, it has to be remarked that the principle on which members are chosen is not readily applicable in a country with a very small number of universities; the demand for institutional representation, and on a basis of equality, may be irresistible.

The considerations already mentioned have to be reconciled with the need for permanently covering the main branches of medical science (Chapter 17).

Obviously, not all branches can be represented continuously, but expert advice in disciplines not covered by Council membership is always obtainable from the special committees appointed for the purpose (Chapter 9). In any event, the role of a Council member is not merely, or even primarily, to represent his particular subject but to participate in a broad consideration of the whole field. A body representing all branches would be too large; and if it were to consist entirely of specialists the effect would be to place many decisions virtually in the hands of a single member. Changes in the number of members, and in their selection for retirement, are mentioned later (Chapter 6).

The honorarium paid to a scientific member of the Council was originally £100 per annum, and it remained at this figure for many years (see Chapter 6).

Functions of the Chairman and Treasurer

In spite of a technical ambiguity, there was never any practical difficulty over the appointment of members to the offices of Chairman and Treasurer, Appointment to membership lay with the Committee of the Privy Council, but appointment to office was made by the Council (subject to the approval of the Committee). The custom was, however, to appoint the Chairman and Treasurer from among those members appointed otherwise than in respect of scientific qualifications—that is, without consultation—and the Committee of the Privy Council was thus able to approach possible new members on the basis that appointment to office would follow. In other words, appointment to office by the Council became purely formal.

The functions of the Chairman of such a body as the Council are in the main obvious. He presides over its meetings, and between these he is available for consultation by the Secretary and may be asked to approve emergency action in the Council's name. He may, of course, also take the initiative in raising questions with the Secretary, He may likewise represent the Council on special occasions.

On the other hand, the Chairman was not ordinarily called upon to act as the Council's spokesman in representing its view to higher authority. This inhibition was due to the constitutional position of the Council as part of a double-tiered organisation and the consequent dual role of the Secretary as mentioned above. In these circumstances the Secretary was naturally the link between the two tiers, putting forward submissions by the Council on matters requiring ministerial approval. It was therefore only on rare occasions (sometimes in questions affecting the Secretary's personal position) that the Chairman made any representations of an official kind on the Council's behalf.

The functions of the Treasurer were much less obvious. The Charter stated that it was his duty "to receive on behalf of the Council all sums payable to the Council for the purposes of medical research". This was clearly impossible in practice; it could not be a realistic duty unless the financial side of the headquarters office were made directly responsible to the Treasurer and not to the Secretary, an arrangement which would have been in the highest degree inconvenient. Moreover, it was naturally to a permanent official that the Treasury looked in any matter concerning the Council's finances; for long, a senior official of the Treasury was 'accounting officer' for the Council's grant-in-aid, since it was being borne on a vote made to the Treasury by the House of Commons (Chapters 6, 15).

Nevertheless, it was useful to the Council to have among its members one with special qualifications and experience in financial affairs. The Treasurer was indeed expected by his colleagues to take a lead in their deliberations when matters of this kind came before them. He was also available for consultation by the Secretary or his appropriate deputy; his advice was valued by the headquarters staff and was commonly sought at an early stage in framing any major proposals of a financial nature. The Treasurer also, as a matter of custom, came to be regarded as having a special function in respect of the Council's capital funds (of non-official origin), although in practice his role might be confined to approving action on recommendations made by the Council's professional advisers on investments.

Secretary and staff

The Council appointed its own Secretary, and the appointment was not subject to ministerial approval (although the responsible minister might nevertheless expect to be kept informed of the Council's intentions). The principle was important, because the appointment was obviously a key one in the whole organisation and had to be made largely on scientific grounds. The chief qualification was first-hand knowledge of the aims, methods and current content of medical research, coupled with high standing gained by personal achievement in that field. A new Secretary was therefore usually sought outside the existing headquarters staff, and indeed outside all administrative employment. It was taken for granted that he must be a member of the medical profession. Clearly he had also to have aptitude for administrative work, in addition to exceptional personal qualities of a nature less easily defined.

The Council was also empowered to appoint other staff, both for the purpose of its headquarters administration and for such part of the research programme as it might wish to have carried out under its direct control. For the number and remuneration of staff the approval of the Committee of the Privy Council was required—in effect the approval of the Treasury, which

was usually consulted by the ministerial Chairman of that Committee. In practice, specific approval had rarely to be sought; the number of staff was for long governed by the funds made available, and except for a very few of the most senior posts the other condition was regarded as satisfied by conformity with scales of pay authorised for general application to particular categories of staff (see Chapter 15).

Financial control

A primary function of the Committee of the Privy Council was to furnish the Medical Research Council with funds for its work (Chapter 15). In practice this meant that the Chairman of the Committee of the Privy Council approved the estimate submitted annually to the Treasury. In the expenditure of its funds, so far as these were provided by Parliament, the Medical Research Council had to act in accordance with any directions given by the Committee of the Privy Council; and the same applied to the manner of holding property. In effect this meant that the Council was subject to Treasury control, but in practice the requirements of that department were met by a broad conformity with the principles governing the expenditure of public funds. The Council's accounts have, by direction of the Treasury as provided by the Charter, been audited by HM Exchequer and Audit Department.

Article 8 of the Charter implied that the Medical Research Council was not subject to direction by the Committee of the Privy Council in respect of expenditure of moneys provided otherwise than by Parliament. Although this gave the Council some independence in the use of funds of non-official origin, it did not follow that the Treasury could disinterest itself completely—having regard to the total position of the Council as a body financed mainly from public funds. In any event the Council remained subject to the obligations of trusteeship, whether or not the particular funds were received under express conditions of trust. It would therefore not be permissible to use such funds for any purpose which the Treasury would regard as improper (as distinct from abnormal in the practice of Government departments), or for any purpose outside the scope of the Council's appropriate functions.

Chapter 6

Later Constitutional Developments (1920–1971)

Changes in membership of the Committee of the Privy Council—The Minister for Science—Amendments to the Royal Charter—Assessors to the Council—The National Health Service Acts—Statutory responsibilities—The Council's jubilee—Implications of the Trend Report—Dissolution of the Committee of the Privy Council—The new Charter—Criticisms and new proposals

Changes in membership of the Committee of the Privy Council

As recounted in Chapter 5, the Committee of Privy Council for Medical Research originally consisted of the Lord President of the Council, as chairman, and the three 'health ministers'—the Minister of Health, the Secretary for Scotland and the Chief Secretary for Ireland. The last named office ceased to exist in 1922.

By an Order in Council of 26 July 1926 (Appendix D), the Committee was reconstituted with the addition of three further ministers, the respective Secretaries of State for the Home Department (incorrectly styled in the Order), for Dominion Affairs, and for the Colonies. (Almost immediately afterwards the Secretary for Scotland became a Secretary of State; in 1947 Dominion Affairs became Commonwealth Relations.) The Home Secretary was added, partly on general grounds, partly because he had responsibility for relations with the Government of Northern Ireland, and partly because the Home Office at that time included the Factory Department and had thus a special interest in industrial health. The other two appointments recognised, respectively, that the Council had scientific relations with analogous bodies and other institutions in the self-governing dominions and had concern in promoting research into problems of tropical medicine which were of importance in colonial territories. The Council's Report for 1919–20 refers to the value of a constitutional link with the Dominions, but in practice relations have been maintained at a scientific rather than a political level.

The Committee was again reconstituted by an Order in Council of 28 October 1955 (Appendix D), this time with the addition of the Minister of Labour and National Service (styled Minister of Labour from 1959). The chief reason for this new appointment was that the Factory Department, and with it the interest in industrial health, had meanwhile been transferred from the Home Office to the Ministry of Labour.

Changes affecting the chairmanship of the Committee were made in 1959 and 1964, as related below; and the eventual dissolution of the Committee, in 1966, is mentioned later.