

In addition to chemical analyses and tests performed on a wide range of materials and products purchased, chemical research work is conducted with regard to such subjects as wood preservation, plastics applications, protective coatings, brush and weed control, lubrication, liquid electrical insulants, water treatment, thermal insulation, and corrosion prevention.

Other studies contributory and supplementary to the main branches of work are carried on in the fields of physics, biology, petrology and mathematics.

Subsection 3.—Medical Research

Medical Research Facilities.*—Support for medical research is provided by the Federal and Provincial Governments, by private foundations or corporations, by voluntary agencies which raise money by public subscription, and by universities and hospitals. From these sources there are available (a) research fellowships for training, (b) grants-in-aid for assistance in problems of a fundamental or clinical nature, (c) salaries for trained personnel, and (d) the necessary capital and running expenses for investigations which are of particular interest to government, hospital or pharmaceutical house.

The Department of National Health and the Department of National Defence maintain establishments in which research is done in well-equipped laboratories with highly trained personnel. The Department of Veterans Affairs encourages its staff to do research in its own hospitals; much of this concerns chronic illness, such as arthritis, atherosclerosis, metabolic and nutritional derangements.

Most of the fundamental medical problems are studied in medical schools through the system of grants-in-aid. Funds from the Federal Treasury are provided through the National Research Council, the Defence Research Board, and the Department of National Health. The National Research Council supports mainly research in the basic medical sciences—*anatomy, physiology, biochemistry, pharmacology, bacteriology, pathology, and experimental surgery*—but 20 p.c. of its grants are for clinical investigations. The Defence Research Board makes grants for studies in which it is particularly interested, such as shock, the preservation of blood and the use of blood substitutes, the effects of low temperatures and of radiation, etc. The Department of National Health and Welfare provides funds for research, available on the recommendation of provincial departments of health, in the following fields: public health research, tuberculosis control, child and maternal health, mental health, and general public health. It also gives assistance to the Canadian Arthritis and Rheumatism Society (which obtains other support by public subscription) and to the Ontario Heart Foundation (which derives its other resources from the Ontario Provincial Government). In addition the Department of National Health and Welfare makes available to the provinces cancer grants, out of which the provinces may supplement the funds for research which the National Cancer Institute receives from the Canadian Cancer Society. Thus the Department of National Health and Welfare is the Canadian agency which gives the greatest support to extramural research in medicine; its interest is primarily in those problems that have a direct bearing on the health of the nation rather than in fundamental research.

Universities receive funds for research also from provincial branches of the Canadian Cancer Society and from such government foundations as the Ontario Cancer Treatment and Research Foundation and the Alcoholism Research Foundation, from fraternal societies and clubs such as the Rotary Club, from the J. P. Bickell Foundation, the Atkinson Foundation, the Canadian Life Insurance Officers Association, the Muscular Dystrophy Associations of Canada, the Banting Research Foundation, the Multiple Sclerosis Society, pharmaceutical companies, etc.

With help from these diverse sources, active research programs are in progress in every one of the twelve Canadian medical schools. In certain of these there are special departments devoted to research, e.g., the Departments of Medical Research at the

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