

for research; (2) assisted research grants to heads of science departments in the universities for the employment of junior assistants and the purchase of special equipment for research purposes; (3) award of post-graduate and post-doctorate fellowships in the natural sciences and in medicine.

Consolidated grants in substantial amounts are also now being made for the conduct of approved projects by competent research scientists in universities and some other institutions.

Principal Activities, 1949-50.—A progressive spirit marks the work of the National Research Council. With the entry of Newfoundland into Confederation in 1949, the Council expanded its operations to include the new Province. The Technical Information Service representative visited most of the secondary industries in Newfoundland in the late summer and, in co-operation with the Provincial Government and the Industrial Development Board, completed arrangements whereby the Technical Information Service will serve Newfoundland industries in the same efficient way as it has been aiding other Canadian industries.

While much of the work of the National Research Council is directed towards increasing the efficiency of Canadian industry and finding useful outlets for industrial waste products, there is a noticeable trend towards recognition of the importance of pure science research as a means of keeping investigators abreast of world developments and, indeed, of leading the way to new scientific discoveries.

In this connection, it may be noted that, as part of its recruitment plan, the Council is now offering post-doctorate fellowships on an annual basis. Under this plan, more than 50 highly skilled scientists from 37 universities, including 11 Canadian institutions and 26 located in ten other countries, have been brought into the laboratories to work under the direction of the Council's leading scientists. Their advent has proved a refreshing stimulus to pure research, and their presence in the laboratories means that the fame of the National Research Council is being extended to all parts of the world.

The Council's Atomic Energy Project at Chalk River had a highly successful year. The NRX reactor continued its satisfactory performance enabling the scientists to obtain much new knowledge of a fundamental nature and to produce an abundant supply of isotopes.

An improved type of neutron spectrometer has been constructed and put into operation. A vigorous program of research on the mechanism of radiation-induced gene mutation in bacteria is being prosecuted by the medical and biological branch. These experiments are yielding very interesting results.

A new isotope separation laboratory has been completed and the number of shipments of an increasing variety of radioisotopes to Canadian industries, universities and research institutions more than doubled during the year. Recently, requests for 500 millicurie sources of Cobalt 60 have been received from the Ontario Research Foundation and the British Columbia Research Council. These materials, made in the Chalk River plant, and valued at \$2,500, will be supplied without charge as a grant from the Council to promote research in their use.

A regional station is being developed at Saskatoon, Sask., where building problems of special interest to the Prairie Provinces are being studied. A large laboratory facility put into operation early in 1950 is being developed for testing wall sections under severe conditions. A special test building and access tunnel have