whether they represented a unique type of cell line or whether there was but one stem cell for all the tissues and the organisms. What was the interrelationship between the stem cell's proliferative capacity and its ability to differentiate or become high specialised in function? How long did stem cells live? Despite the progress in research the answers were slow in coming, but the questions were now more sharply focussed. More work, more discussions, and exchange of view-points would bring the answers.

Feldman wondered why the small lymphocyte (a blood cell) was so sensitive to radiation, despite the fact that it did not proliferate, i.e. undergo mitosis, at which time a cell was normally most vulnerable to radiation injury. Perhaps the sensitivity occurred during the stage when lymphocytes synthesize antibody to neutralise antigens in the body, a period when much gene activity occurs. Perhaps impairment here leads to cell death. Experiments to find out how repairable was such injury were needed. In addition it was still not clear whether there was an inverse relationship between the formation of red blood cells and white blood cells, i.e. whether an inhibition of red blood cell formation allowed for greater growth and development of the lymphoid cell types. Clarification here would help define whether there was a common haemopoietic stem cell or at what stage the different cell lines become defined.

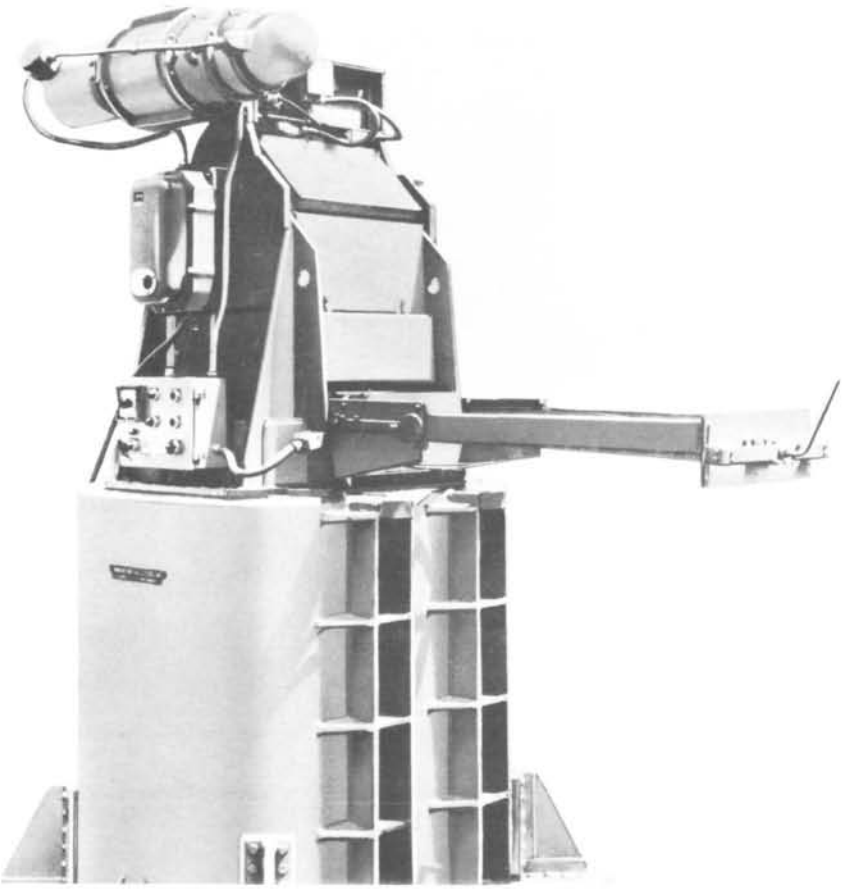
References were made during the discussion to the use of injections of bone marrow in treatment of radiation damage, and experiments to determine the behaviour of its cells. Patt emphasised the importance of paying full attention to the over all organization of systems as well as to the effects on specific cells.

KEEPING SEA FOOD FRESH

Research work in various countries has established that shelf-life of fresh fish can be doubled by submitting it to ionizing radiation.

A shore-based experiment to demonstrate if this method of preservation is practical under conditions such as exist in the fishing industry and trade in Iceland, will be undertaken by the Governments of Iceland and the United States with the Food and Agriculture Organization of the United Nations (FAO) and the International Atomic Energy Agency (IAEA). If successful it could benefit the fishing industry in general and make fish available to more people.

The decision to carry out the experiment was made at a meeting in Vienna attended by representatives of the two Governments and IAEA and of



This irradiation unit supplied by the Government of the USA is being used in the Iceland experiment to investigate the practicability of preserving fish in the special conditions there by using atomic techniques. Photo: Radiation Facilities, Inc.

the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture. It will be a survey project lasting for a year and will use a nuclear irradiation unit designed and provided by the US Atomic Energy Commission. This unit, though installed on land for the present project, has been designed for use on board ship, the idea being to enable the trawlers to extend their fishing trips; it also offers the possibility of sending fresh fish, a valuable source of protein, to new areas.

The project will start this summer and will be watched by observers from developing countries with special interest in the subject. The Government of Iceland will place installations, laboratories, space for irradiator, raw material, manpower and other services which may be necessary at the disposal of those

A 30 000 curie irradiation chamber at the Austrian Studiengesellschaft für Atomenergie is used for an international project to study possible use of irradiation for fruit and fruit juice preservation. Ten countries have been taking part as well as the European Nuclear Energy Agency and IAEA in one of the many research programmes to increase the scope and ensure the safety of irradiated food Photo: Studiengesellschaft für Atomenergie