

### Canada/Mexico exchange program

The Canada-Mexico Exchange Program for Young Specialists and Technicians is seeking young Canadians interested in gaining career-related experience in Mexico for periods of from four to 12 months.

During 1973, the first year of the program, 13 Canadians and 15 Mexicans took part in the exchange; this year there will be 20 participants from each country.

Applicants in Canada must be Canadian citizens between 18 and 30 years of age. They must have a basic knowledge of Spanish, possess a degree from a university or educational institution at the post-secondary level, or have a recognized diploma from a technical high school. Work experience is preferable though not essential. Successful applicants must also present a health certificate.

Training positions in Mexico will be made available in a broad range of industries. Through the program's reciprocal agreement, the National Council for Science and Technology in Mexico will be responsible for selecting young Mexican workers for training in Canada. Canadian companies are providing training positions for suitable Mexican candidates.

### Second Canada/New Zealand Consultative Committee Meeting

The second Canada/New Zealand Consultative Committee Meeting was held in Wellington, New Zealand from February 19-21. The Canadian delegation was led by the Minister of Regional Economic Expansion, D.C. Jamieson, and included officials of the Departments of External Affairs, Industry, Trade and Commerce, Finance and Agriculture, as well as the High Commissioner to New Zealand and officers of his mission. The New Zealand delegation was headed by J.A. Walding, Minister of Overseas Trade, who is also Associate Minister of Foreign Affairs, and other officials.

The decision to create the Consultative Committee came as a result of Prime Minister Trudeau's visit to New Zealand in May 1970, at which time Mr. Trudeau and the former Prime

Minister of New Zealand, Sir Keith Holyoake, exchanged letters setting out the Committee's terms of reference which call for periodic consultations primarily on economic and commercial matters. However, the Committee can discuss other items such as international political developments and, in fact, the agenda for the meeting last month included a broad range of subjects of mutual interest in the political, economic, commercial and scientific fields.

### Computers crack medical questions

Two Sir George Williams University computer scientists, Stanley Heaps and Kin-Vinh Leung, and John Cumberbatch of the University of Alberta, may soon be able to give some diagnostic relief to harried general practitioners. The research team has spent the last two years in an attempt to develop a computer program which, by analyzing a patient's answers to 11 simple questions, can give an accurate analysis of his condition and possibly eliminate the need for exploratory surgery.

Their success rate so far has been encouraging. Out of 300 cases tested, their program has been correct 92 per cent of the time, a success rate more than 10 percent above that of most other groups working in the field.

Heaps admits that computer diagnosis won't replace doctors just yet but he sees the project as affording valuable consultative aid, a kind of "second opinion", in case of doubt. The cost, says Heaps, once the project is completed, would be "almost trivial".

So far, because of the difficulty of obtaining reliable data in most fields, the researchers have confined themselves to the field of gastro-enterological disorders — hiatal hernia, duodenal ulcer, gastric ulcer, cancer, gallstones and functional disease — because, as Heaps explains, "doctors in that field are perhaps a little more interested in what we're doing".

#### Simple method

The team's methods and procedures are relatively simple and even the actual computer program, Heaps says, "is not terribly "sophisticated". Patients have only to answer questions, regarding such symptoms as

headaches, back pains, irregularity, weight loss, and food aggravation to give the computer enough to go on.

The real problem, says Heaps, is the mathematical analysis and it is in this area that the Sir George team differs from most of the other teams working in the field. The normal procedure is to approach the problem purely on a statistical level but, says Heaps, his group has found that some of the techniques used in electrical engineering are also useful.

But Heaps foresees far more potential to computer diagnosis than merely the area he has explored so far. It could be used, he says, for almost any physical disorder — allergies for example.

It seems that the facts bear him out. New York City hospitals are now using an IBM computer to diagnose and prescribe in the area of poison-control, and scientists from the Massachusetts Institute of Technology and the Tufts-New England Medical Center in Boston are working, with more than fair success, on the computerized diagnosis of kidney diseases.

### Queen's principal named chairman of centre for resource studies

At its inaugural meeting in February, the board of directors for the Centre for Resource Studies (CRS) at Queen's University, Kingston, Ontario, elected Queen's principal John J. Deutsch as chairman of the board.

A total of \$1.25 million over a five-year period has been allocated to finance the program. The Department of Energy, Mines and Resources and the Mining Association of Canada will each contribute \$125,000 a year.

Designed to investigate broad policies that focus on non-renewable Canadian resources exclusive of petroleum, the Centre, which is sponsored by the Mining Association of Canada, the Department of Energy, Mines and Resources and Queen's University, will obtain and analyze basic data and co-ordinate contracts for research, using experts from many disciplines.

Researchers in engineering, physical, biological and geological sciences, economics and business, geography, law and the social sciences will be working to find answers to the complex problems of the mineral industry.