

Delegation to NATO, at the Organization for Economic Co-operation and Development (OECD), and as Permanent Representative to the OECD. From 1962 to 1967, he was Deputy Director General of the Canadian International Development Agency (CIDA). Following his posting to Washington in 1972, he was named Ambassador and Permanent Representative to the OECD in Paris, serving from 1972 to 1975. From then to his appointment as Ambassador to the United States, Mr. Towe was Assistant Under-Secretary of State for External Affairs.

The U.S.A. in Canada...

The United States Ambassador is the personal representative of the President and is in over-all charge of the embassy in Ottawa and the seven U.S. consulates general in Halifax, Quebec, Montreal, Toronto, Winnipeg, Calgary and Vancouver. When he takes part in a ceremony, delivers a formal address, or engages in negotiations, he does so on behalf of the President.

As with their Canadian counterparts in the U.S.A., the U.S. consular staff act as on-the-spot observers of matters affecting Canadian-U.S. interests, and their recommendations have a direct bearing on U.S. foreign policy with respect to Canada. They translate into action foreign policy decisions, as well as protect the interests of American citizens and business concerns. They also disseminate information on the United States, its institutions and its people, and respond annually to thousands of requests for information.

Their man in Ottawa



Thomas O. Enders of Waterford, Connecticut, took up his post as Ambassador to Canada in February 1976. He began government service as a research specialist, Division of Research and Analysis for Far East, from 1959 to 1960, and was an economic officer in Stockholm from 1960 to 1963. From then to 1966 he was a supervisory international economist in the Bureau of European Affairs, and from 1966 to 1968, a special assistant to the Under-Secretary of State for Political Affairs. During 1968-69, he served as Deputy Assistant-Secretary of State for International Monetary Affairs, moving to Belgrade where he served as Deputy Chief of Mission till 1971. From then until 1974 he was Acting Chief of Mission in Phnom Penh when he was named Assistant-Secretary of State for Economic and Business Affairs. He held that position until his current appointment.

See Potpourri page 21 for more on Canada's first diplomatic mission south of the border.

A report by the Senate of Canada, *Canada-United States Relations*, is available from the Department of Supplies and Service, Ottawa, Ontario.

"Let us now praise famous men..."

SCIENCE & MEDICINE

Americans and Canadians, and people throughout the whole world, in one way or another have been touched by the achievements of these Canadian pioneers.



Dr. Wilder Penfield

Did you know that everything you ever did, everything you ever saw, everything you ever heard is locked in your brain for as long as you live? It can be totally recalled. If your skull were opened and a cell touched with an electrode, you might relive the past.

Wilder Penfield, MD, the founder of the Montreal Neurological Institute, discovered this phenomenon while cutting brain cells to cure a patient of epilepsy. Dr. Penfield was born in Spokane, Washington, in 1891. He went east to school, was a Rhodes scholar and became in time a Canadian citizen, one of the great neurological pioneers, a novelist, and a strikingly independent thinker. He described how he discovered the hiding place of memory: "There was a girl who, in her epileptic attacks, used to have a regular little dream. So I stimulated (with electricity), and it became perfectly obvious that this wasn't a dream — this was a memory. Her brothers were involved in it, and they authenticated it." Dr. Penfield died April 5, 1976.



Dr. Charles Best and Dr. Frederick Banting

In the summer of 1921, Banting and Best, under the direction of J.J.R. MacLeod, MD, worked on a six-week deadline in a borrowed lab at the University of Toronto searching for a substance to control diabetes. They were certain that some natural substance in the pancreas prevented most people from getting the disease. Banting sold his car to buy experimental dogs, and the two scientists ate and slept on the premises. By the end of summer Banting and Best had extracted insulin. Within six months it had been purified and used to save the life of a 14-year-old boy. In 1923 MacLeod and Banting were awarded the Nobel Prize for Medicine and Banting immediately shared his half with Best. Dr. Banting, a surgeon from London, Ontario, was killed in a plane crash in 1941. Dr. Best was born in West Pembroke, Maine, of Canadian parents, and died in Toronto on March 31, 1978. One of the world's most respected medical researchers, Dr. Best was also honoured for his work in developing the anti-allergic enzyme histaminase and heparin, which is vital in heart surgery as an anti-blood clotting agent.



Dr. Hans Selye

While doing research at McGill University in Montreal, Dr. Hans Selye took extracts from the ovaries of recently slaughtered cows and injected them into female rats. The rats got peptic ulcers, their adrenal glands enlarged, and their lymphatic systems atrophied. He tried extracts from other organs and got the same response. He put all the rats on the roof of the medical building, in mid-winter, and they developed the same syndrome. No matter what stress he inflicted on them, they responded in the same way.

Dr. Banting supported Dr. Selye's research and arranged his first small grant. In 1944 Selye published some results in the *Journal of the American Medical Association* and in 1952 he published *The Story of the Adaptation Syndrome*. Today his concept of biological stress is included in medical textbooks throughout the world. In essence it is this: When a person is under stress of any kind his body responds in a predictable way. The stress may be damaging (in which case it is called distress) or it might be exhilarating (eustress), such as news that one has won a sweepstakes. Dr. Selye: "In fact, any situation in life that makes demands upon our adaptive mechanism creates stress."



Dr. David Suzuki

David Suzuki looks like half of a TV team of dashing young cops, the kind who wear embroidered denim shirts and drive sports cars on the sidewalk. Actually he is a TV star, and his shirts are sometimes embroidered. He is also the geneticist who bred a strain of fruit flies that drop dead in the cold, originating a new kind of pest control.

Suzuki is the concerned principal of the CBC's *Science Magazine* a television program to tell the layman, in non-jargon language, what is going on in the labs. He believes science could ruin us before it saves us, and genetics is his principal cause of concern. A native of British Columbia, Suzuki studied genetics at Amherst, then took his PhD at the University of Chicago. He worked for the Oak Ridge National Laboratory in Tennessee, then returned to Canada to the University of Alberta and soon to the University of British Columbia.

In 1967, he and five researchers published *Temperature-Sensitive Mutations in Drosophila Melanogaster I. Relative Frequencies Among Gamma-Ray and Chemically Induced Sex-Linked Recessive Lethals and Semi-Lethals*. It was the breakthrough on pest control, and also one of the reasons why he wants to de-mystify the jargon. Suzuki is still with his fruit flies and UBC.