

Hon. F. W. Gershaw: Honourable senators, may I first of all congratulate the mover (Hon. Mr. Cook) and the seconder (Hon. Mr. Denis) of the address in reply to the Speech from the Throne, on their eloquence. I wish also, in a humble way, to express my welcome to the new senators, as well as to congratulate the Leader of the Government (Hon. Mr. Connolly) on the high position to which he has attained. Senator Willis has delivered one of his usual good speeches. I hope he will pardon me if I depart from the theme of his speech to another subject in which I am interested.

Honourable senators, as the result of medical research great blessings have come to people generally, and if research can be continued, even greater blessings will come in the future. I mention one disease that in the past was feared and dreaded, namely, poliomyelitis, which was the cause of many deaths, permanent paralysis, and was largely uncontrollable. Yet since 1955, when the Salk vaccine was discovered, the disease has largely come under control; its incidence has sharply reduced and fatalities are now very rare. Of course, it comes in waves. In 1955 there were 58,000 cases in the United States, and in 1962 only 450 cases. In fact, one-fifth of the cases and half of the fatalities are now among persons over 15 years of age. It is quite clear that if a person takes some Salk vaccine now, and another injection in a month's time, and still another in seven month's time, he or she will be almost free of polio.

Another great accomplishment in Canada was in 1921, when the late doctor Sir Fredrick Banting discovered insulin. In spite of setbacks and discouragements, he persisted, and with the help of Dr. Best and Dr. Collup, he succeeded. Thousands of people are now able to live a normal life who would not have been able to live at all had it not been for insulin.

During the past 40 years more curative measures have been standardized than in all previous history. With sulfa, penicillin, other antibiotic drugs, and treatment of goitre, blood transfusions, blood banks, bone banks and so on, the whole medical subject has been changed quite definitely. How dreadful it used to be when cases of scarlet fever and diphtheria afflicted a family or a community and caused many deaths and much sadness. That is almost wiped out now, with the result that the average length of life, which was about 50 years at the beginning of the century, now stands at about 68 years for men and about 73 years for women.

There is much need for medical research. We in Canada spend about \$12 million per annum, of which approximately \$3 million or

\$4 million is by voluntary contribution, and the remainder is contributed by the Government. According to my information, the United States spends about ten times that amount per capita. I am sorry that they are going to withdraw some of the contributions to Canada, because it is very necessary to keep up our medical research. It should be maintained under the guidance of universities. There is not a university in Canada which is not short of money, and there is not a medical faculty in Canada but wants to carry on medical research. On account of their teaching of scientific medicine they must keep in touch with developments. If they are only able to teach the medicine of yesterday, then the graduates who go out to practice will, of course, only practise the medicine of yesterday.

In Canada we have a great many research specialists who are equipped to carry on very well. Many of them go to the United States. How can we prevent that exodus? We can do it simply by encouraging different branches of research. In addition to the universities, there are other branches. For instance, there are located in Toronto the head offices of such bodies as the Canadian Heart Foundation, the Canadian Cancer Society, the Canadian Arthritis and Rheumatism Society, the Canadian Mental Health Association, and many others.

Honourable senators, I am not going to advocate the conferring of hereditary titles on Canadians, but I think the man, or woman, or the company, which contributes to this research work should get some recognition. It is true that these things bring their own reward in many cases, but at the same time some recognition of the man or woman who is willing to contribute in this very important field is long overdue.

Tuberculosis has been with the human race since days of antiquity; it was once called the great white plague. The different provinces now arrange to have X-rays taken on a universal scale to detect tuberculosis. They have isolated cases, rehabilitated many, and treated others, and have obtained remarkable results. The great white plague is almost under control at the present time; each fatality or new case is the result of neglect.

Much has been done with regard to cardiovascular diseases, but it is still a field for research. What about diet? What about the effect of a high percentage of cholesterol in the blood stream? Is animal fat guilty of increasing atherosclerosis, or hardening of the blood vessels? These are problems we should work with because they are of such vital importance.