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New medicine for heart patients licensed for use in Canada, 1

Canada and Sweden sign nuclear agreement, 2

External affairs minister visits Venezuela, 2

Canada-Israel talk trade, 3

Vehicles test natural gas, 3

Canada Development Corporation buys United States firm, 3

New solar system developed, 4

Relief contributions, 4

TV Ontario extends service, 4

A portrait of Wilder Penfield, 5

Pollution accord ratified, 5

Faster data across border, 5

High jump record, 6

Report on aging published, 6

Train runs around yard, 6

Vaccines for South America, 6

Number of households to grow, 6

News of the arts — exhibit, 7

News briefs, 8

New medicine for heart patients licensed for use in Canada

The Canadian government recently approved a new medicine that reduces the risk of death among victims of myocardial infarction who have survived the critical phase of a heart attack.

Canada is the first country to approve this medicine, which is known as Blocadren and which is used for the prevention of heart attacks.

The discovery of Blocadren

Blocadren was discovered in the 1960s, when clinical studies made it increasingly clear that three out of ten people had high blood pressure and were unaware of it.

Blocadren was discovered by a team of researchers headed by Dr. Burton K. Wasson in the Kirkland laboratories of Merck Frosst Canada Incorporated, on the outskirts of Montreal. Developed by the research laboratories of Merck, Sharp & Dohme, a division of Merck & Company Incorporated, this medicine has been sold by Frosst in Canada since 1977 for the

treatment of high blood pressure and a heart malady known as angina pectoris.

Dr. Wasson and his team, who had centred their research on the role of the sympathetic nervous system in the functioning of the heart, developed a new chemical substance towards the late 1960s known as timolol maleate, which was subsequently marketed under the name of Blocadren.

Timolol maleate is a "beta blocker", one of a family of products that have the property of blocking the effects of adrenaline and noradrenaline, which are released by the organisms in response to stress on the heart and blood vessels.

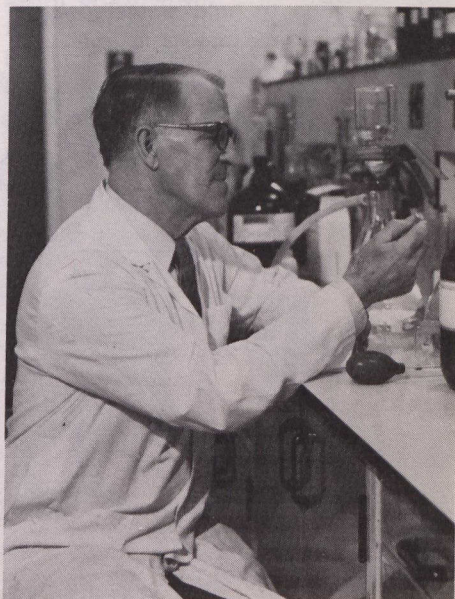
"We realized that this substance was an especially effective anti-glaucoma agent and that it could reduce high intraocular tension with far less irritation and fewer secondary effects than the existing products," explained Dr. J.L. Mailloux, director of medical services at Merck Frosst.

Myocardial infarction

Acute myocardial infarction is the most common cause of heart attack and is one of the main causes of death around the world. It is triggered by an interruption of the blood circulation in an area around the cardiac muscle, thus cutting off the necessary oxygen from this region and causing the muscle tissue to die. In the year following the acute phase of a heart attack, the possibility of death increases to 15 per cent, or 30 times higher than the average mortality rate. In the five years following, the percentage declines by 5 per cent yearly.

How the drug works

Blocadren works on a part of the nervous system known as the sympathetic or the adrenergic system. The activity of the sympathetic nervous system is exercised on the involuntary muscles of the organism, such as the heart and blood vessels. Blocadren reduces the activity of the sympathetic nervous system by occupy-



Dr. Burton K. Wasson, whose research led to the discovery of timolol maleate (Blocadren), the first "beta blocker" authorized in Canada for the prevention of heart attacks.



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