

Canoeists cross Quebec

Six Montreal men are planning to retrace the 1 000-kilometre cross-Quebec trip of the seventeenth century Jesuit missionary Charles Albanel.

The trip from Tadoussac, Quebec where the Saguenay River flows into the St. Lawrence River, to Fort Rupert on James Bay, is their way of marking this year's four-hundred-and-fiftieth anniversary of explorer Jacques Cartier's landing in Canada. Using a fibreglass canoe 7.6 metres long by 1.2 metres wide and weighing 143 kilograms, the team expects to take about 75 days to cross northern Quebec from east to west.

Heart attack "time-bomb"

A University of Ottawa scientist has discovered a link in explaining why some people have heart attacks, Canada's No. 1 killer.

Dr. Stanley Kalsner has found some people may be predisposed to heart attacks because of a body mechanism that can cause artery spasms that choke off blood to the heart.

He found arteries from patients who have died of heart disease are as much as 1 000 times as sensitive to histamine, a little-understood body chemical, as are arteries from patients who have died of other causes.

He has also found heart patients' arteries contain twice as much histamine as other patients' arteries.

"It's sitting there like a time-bomb waiting to go off," said Dr. Kalsner, a world-renowned pharmacologist and the only Canadian studying live human heart arteries.

The next step, he said, is to find out what triggers the explosive release of histamine from its "storage depots" in cells, and whether drugs, for example antihistamines, can block or depress the sensitivity of some people's arteries, especially as they age.

Dr. Kalsner said it might be possible to give preventive treatment to patients with a family history of heart disease.

He has also found that arteries from heart disease victims are hypersensitive to several other body chemicals, although not quite to the degree that they respond to histamine.

"We're on the threshold," Dr. Kalsner said.

Canada hosts auto race



Canapress

The first-ever Canadian auto race to be sanctioned by Championship Auto Racing Teams (CART) is scheduled September 9 at Senair Super Speedway in St. Pie de Bagot, 50 kilometres east of Montreal. Among the drivers expected are Mario Andretti, Rick Mears, A.J. Foyt, defending CART champion, Al Unser Sr. and Canadian Jacques Villeneuve (above), brother of late Formula One driver Gilles Villeneuve.

Male contraceptive

A professor at the University of Western Ontario in London, Ontario may have found the long-sought male contraceptive — 100 per cent reliable and without side effects.

Dr. John Wiebe was searching for substances that induce puberty when he found that low dosages (about 140 micrograms) of one molecule completely halted production of male rats' sperm cells. This contraceptive effect was total with a single injection into each testis: after four matings (presumably to clear existing spermatozoa out of the rats' reproductive tracts), the treated animals were completely sterile. All measurements of physiology and behaviour, such as hormone levels and frequency of sexual activity, showed no difference between the treated rats and a control group.

According to Dr. Wiebe, the contra-

ceptive molecule (which will not be identified until patents have been filed) is specific for cells that produce spermatozoa, and does not appear to affect any other tissues. Furthermore, the molecule is not a toxin.

In human males, contraception using this technique would dispense with surgery, postoperative recovery, internal pressures on the reproductive system, and possible autoimmune response. All of these effects may follow vasectomy, the only currently feasible way to sterilize males. Autoimmune response occurs when reabsorbed spermatozoa trigger the body's own immunological system: the result could be an allergy to one's own sperm.

As well as human contraception, the new technique might also control populations of agricultural breeding stock and pets. Tests on monkeys may soon be under way, to be followed by tests on human volunteers. Dr. Wiebe is especially interested in proving that the effect is reversible — that after a few months, the effects of an injection simply wear off.

(Article from Science Dimension.)

Canada supports humane trapping research

Environment Canada will provide \$1.5 million over a four-year period for the research and development of humane trapping devices and methods, Environment Minister Charles Caccia has announced.

The money will be used to field-test devices already in different stages of development and for their further modification, as well as for research into new and more humane and effective trapping devices and methods. An additional \$350 000 will be provided to train trappers in the use of these devices, and for the development of national standards to govern humane trapping practices.

The funds will go to the recently formed Fur Institute of Canada (FIC), whose primary responsibility will be research and development of humane devices and methods for the trapping of fur-bearing animals and for trapper training.

The FIC succeeds the federal-provincial Committee on Humane Trapping, which had previously approved 16 new trap designs as being humane. The majority of these are now being field tested on several provincial traplines. Trapping practices are regulated by the provinces.