Professors' scientific and cultural research reaps rewards

Eight Canadian scholars and scientists have won Royal Society of Canada awards for their research in the areas of science and culture.

The awards, valued at $2 000, were presented at a special ceremony in Ottawa on June 2, during the centenary celebrations of the society. The organization encourages learning and research in the arts and sciences.

University of British Columbia Professor Clayton Person, considered one of the world's leading authorities on the genetics of plant parasites, has been awarded the Flavelle medal in biological sciences.

The McLaughlin medal for medical science research recognizes the achievements of Dr. John Brown, also with the University of British Columbia.

Brown's work has played an important role in understanding the problems of diabetes and obesity.

The society also presented W.G. Unruh, an associate professor at British Columbia University, with the Rutherford Memorial medal in physics for wide-ranging physics research.

University of Toronto immunologist Bernhard Cinader won the Thomas W. Eadie medal in engineering and applied science for his research into the effect of aging on human resistance to disease. In addition Assistant Professor Geoffrey Ozin of Toronto University, was given the Rutherford Memorial medal in chemistry for his innovative work in that field.

The Lorne Pierce medal for achievements in literature was awarded to Professor Malcolm Ross of Dalhousie University.

Professor Ross, former editor of the *Queen's Quarterly* and originator and general editor of the New Canadian Library for many years, also wrote two authoritative studies in Elizabethan and seventeenth-century literature.

University of Montreal Professor Jean-Pierre Wallot, a prolific writer on the history of Lower Canada, has won the Tyrrell medal in Canadian history.

Earth scientist Christopher Barnes of Newfoundland's Memorial University received the Bancroft award in geological and geographical sciences.

Hair thin thickness measure

A Canadian company, Diffracto Limited of Windsor, Ontario, has developed a robot inspection system specially designed to measure the thickness of human hair.

The system was made for a United States shampoo company that wanted to prove that its product removes more grease and dirt from hair than its competitors.

Six laser beams are used to hit the hair from different angles as it passes for inspection. The resulting diffraction pattern measures thickness down to a millionth of an inch and gives readings of thickness of coatings on hairs down to five millionths of an inch.

"Electro optics is the only practical way to inspect parts," said Dr. Walter Pastorius, a scientist with the company. "People get bored in visual inspections and they are really only 60 to 80 per cent accurate."

Diffracto is planning the largest robot inspection system ever built, a sensory system that can measure imperfections of a .038 of a centimetre on metal tanks seven metres long.

Americans overcome gruelling weather conditions to win at Ottawa's National Capital Marathon
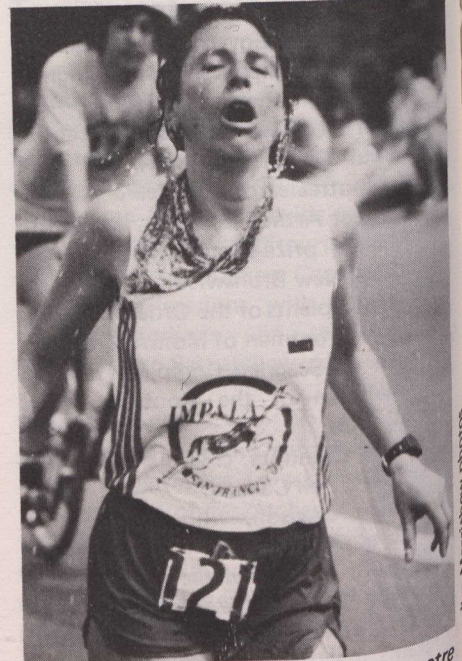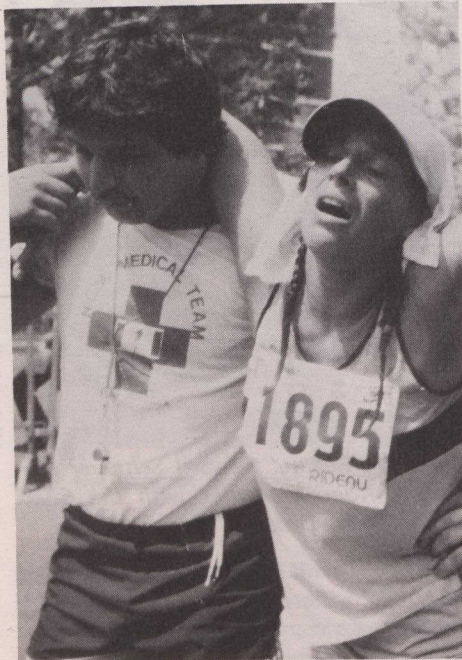
Greg Leroy (left photo) *of Enid, Okalahoma and Margo Elson* (right photo) *of Oakland, California take part in the 42-kilometre National Capital Marathon held recently in Ottawa. Leroy was the first runner to cross the finish line in a time of 2:21:40; Elson was the first woman to finish with a time of 2:50:50. An unidentified runner* (centre photo) *shows the strain of the race which took place under oppressively warm weather conditions — temperatures reached 22 degrees Celsius and there was high humidity. Entrants in the race, which is in its eighth year, numbered 2 758; 2 004 finished the race while 754 did not complete the run. Jim Enright of Ottawa was the lone wheelchair participant finishing the race in 2:09.*