



per on 12 aboriginal children with NIDD was rejected by medical journals because reviewers felt she had not eliminated the possibility that the disease was simply early insulin-dependent diabetes, which is common in both aboriginal and Caucasian populations.

"Type II diabetes is not found in the youthful Caucasian population, so it took a long time for me to convince the medical community that these aboriginal kids were indeed suffering from the type II form of the disease."

In 1990 Dean and her colleagues made a presentation on the subject to the Canadian Paediatric Society, and this was followed by a paper in *CMAJ* in 1992 (Dean HJ, Mundy RL, Mofatt M. Non-insulin-dependent diabetes mellitus in Indian children in

Manitoba. *Can Med Assoc J* 1992;147:52-7). "Since then many physicians in Saskatchewan, Manitoba and Northwestern Ontario have reported increased experience with this new problem," she said.

Dean said the number of cases is small — about 75 young patients have been diagnosed with NIDD since the mid 1980s — so the optimum management is unknown. "None of the drugs licensed for use in adults with type II diabetes are licensed for use in children, so safety and efficacy have yet to be proven in the pediatric age group," Dean said.

Furthermore, she said researchers haven't studied children with NIDD for sufficient time to know the long-term prognosis. Dean expects that their future may be bleak. One of the

children she diagnosed with the illness, who is now 23, has already developed chronic renal failure, is receiving dialysis and is almost blind.

"An illness that normally causes macrovascular disease in the late adult population may cause more microvascular disease in this population earlier," she said. Dean said 1 child aged 6 has been diagnosed with the illness, but most of the pediatric patients are females aged 10 to 14, indicating that the disease may have a gender bias. "We also know that if an aboriginal mother has diabetes during pregnancy, there is a higher risk her offspring will develop diabetes at a younger age."

Dean said First Nations' leaders are taking the problem seriously. "They are working with rural physi-

BC to establish Canada's first genome-sequencing centre

The British Columbia Cancer agency is establishing the first gene-sequencing centre in Canada and one of only a few in the world. Dr. Michael Smith, the Nobel Prize laureate from the University of British Columbia, will serve as director.

The centre, which will open next summer, is the cornerstone of the agency's ambitious new millennium campaign. Over the next year it hopes to recruit up to 40 scientists to work in 3 main areas of DNA research: computer-generated data, mapping, and cloning and sequencing.

The appointment of Smith, who will return to Vancouver from sabbatical work at Seattle's University of Washington Genome Centre, is expected to attract Canadian scientists currently working overseas to key leadership positions.

Smith says that as well as strengthening knowledge about cancer, the centre's work will also be "fundamental to major advances in

all areas of medicine." Additionally, he says, it will "attract activity in the biomedical research sector and in industries, encouraging companies to work here and take advantage of



Dr. Michael Smith

the technology and information that will be developed." BC's burgeoning biotechnology sector and its forestry industry are expected to benefit from the research.

Once established, the centre will collaborate with laboratories in France, Germany and the United Kingdom in the Human Genome Project, which hopes to complete the sequencing of the human genome by 2005, a goal that Smith feels is "achievable."

Started 10 years ago, just 1.5% of this task has been completed. Ultimately, the gene-sequencing work will enable researchers to read gene structures of single cells and identify specific cell changes that are harbingers of cancer, thus creating new possibilities for effective early detection. Through these advances, the agency predicts that all aspects of cancer control will eventually undergo fundamental change.

Funding for the centre will be provided entirely by donations, with \$10 million committed so far. The centre's first phase is expected to cost \$13 million, and the final bill will be \$25 million. Annual operating costs will total \$3.8 million. — © Heather Kent