

## Bill McGowan: new director of the National Museum of Science and Technology.

The last few years have been turbulent ones for Canada's four national museums, with widespread press reports of "desperate conditions" due to underfunding and inadequate facilities. But the purse strings have now been loosened and more than \$200 million is being spent on new buildings in the national capital area.

As of last January, the new director of the National Museum of Science and Technology is Dr. William McGowan, a 52 year old physicist from London, Ontario. Like his predecessor, Dr. McGowan laments the inadequacy of his building and annual operating budget, but his enthusiasm for the museum and for the role it can play in popularizing science in Canada is boundless.

Dr. McGowan arrives at the museum with an impressive background in both science and public service. Author of over 100 scientific papers, he has also found time to become deeply involved in Third World development with organizations like UNESCO and to sit on the boards of a number of scientific and cultural organizations. Since 1969, he has been a professor of physics at the University of Western Ontario in London, Ontario, where he founded the world-famous Centre for Interdisciplinary Studies in Chemical Physics. The Centre brings together specialists from a variety of scientific disciplines to work on such diverse projects as cancer radiation therapy, laser light interactions with the retina, X-ray microscopy of cells, accelerator development, atomic and molecular reactions, synchrotron radiation, and microchip research.

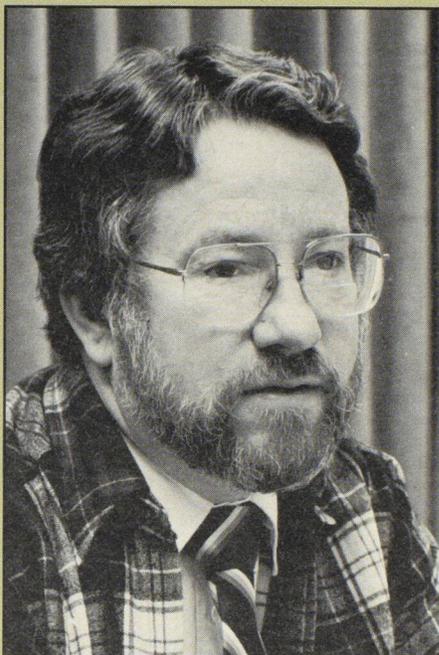
Married with six children, Dr. McGowan was born and raised in Pittsburgh, but he has spent most of his adult life in Canada. His doctoral work was, in fact, done at Laval University under NRC President Dr. Larkin Kerwin, who was then chairman of the department of physics.

Dr. McGowan's research specialty is atomic collision physics. Recently, his work has concerned the interaction which joins electrons and ions known as electron-ion recombination. Dr. McGowan explains that most of the matter in the universe exists as a plasma — a state of matter consisting of charged particles rather than neutral atoms — and that, therefore, electron-ion recombination is a universal and extremely important phenomenon.

Science Dimension met the new director of the National Museum of Science and Technology in his office overlooking the museums front entrance on a sunny, Saturday morning last March.

**Science Dimension:** What has led an eminent physicist with no direct experience in running a museum to tackle the directorship of the National Museum of Science and Technology?

**McGowan:** I've worked for years in the popularization of science and the role of science in development. A lot of



Dan Getz

*"The nation's university of science for the people."*

people will argue that a physicist should only be concerned with strengthening the body of fundamental knowledge, but I don't think that's right. I believe that a physicist, because he is an intelligent person, has a responsibility to put some of his energies into just what we're doing now: into helping with education, into explaining things to people, and into community development.

For example, when I arrived at Western, I'd never done any work in designing accelerators. But with my colleagues I put a lot of energy into designing an electron accelerator in conjunction with Atomic Energy of Canada Limited's Commercial Products Division that could be used for cancer therapy. I did that not only because it was good fun but because I had a real driving desire to make practical use of my physics.

Similarly, in the work I've done in international development I try to encourage my colleagues to be sensitive to what's going on in the community. So my coming to the museum is just an extension of that part of my career.

**Science Dimension:** What in particular excites you about the museum?

**McGowan:** It became clear as I was working in the Third World and even working with our community back in London that museums could be a very powerful tool for getting the story of science across to people. Specialized museums or science centres like the Ontario Science Centre are great. They capture people's imaginations like nothing else. Dr. Tuzo Wilson, director of the Ontario Science Centre, often refers to it as "the laboratory of the people", a place where people can get hands-on experience. And, indeed, it is. I'm tending to call this museum "the nation's university of science for the people." We not only have the responsibility of giving people hands-on experience; we are also charged with being the keepers of technology and the associated sciences. We must tell the history of the development of science and technology within this country. We must discuss the impact that it's having on us now and try to understand what's likely to happen in the future.

**Science Dimension:** You've had a productive and fascinating research career. Do you have any regrets about giving this up?

**McGowan:** I'm finding it almost impossible to give up the last vestiges of it. I want to keep one small group of projects going, although I will have to give up some of the