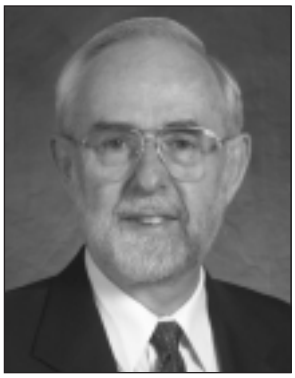
Winners of NSERC's 2003 Awards Honoured

Leader of Sudbury Neutrino Observatory Wins Canada's Top Science Prize

Arthur B. McDonald was awarded the 2003 **Gerhard Herzberg Canada Gold Medal for Science and Engineering** at a gala dinner Nov. 25 at the National Gallery of Canada. The prize guarantees that Dr. McDonald, a professor at Queen's University, will **receive $1 million over the next five years from the Council**.



Denis Drever Photography

NSERC Herzberg Medallist Arthur B. McDonald.

The event also featured an address by Canadian entrepreneur Mike Lazaridis, who joined NSERC in celebrating the achievements of Dr. McDonald and the winners of other NSERC prizes announced earlier in the year.

Dr. McDonald's discoveries about solar neutrinos were the result of one of the major physics experiments of the 20th century, the massive, underground Sudbury Neutrino Observatory (SNO), a 20-year-and-counting international, big science endeavour. And Dr. McDonald's patient, methodical, and energetic leadership was key to its success.

To build SNO, Dr. McDonald managed the creation of the most sensitive neutrino detector to date. It was a massive engineering project that involved the construction of an ultra-clean, ten-storey-high neutrino detector two kilometres underground in INCO Ltd.'s Creighton nickel mine in Sudbury. SNO would be the first neutrino detector able to detect all three kinds of neutrinos (electron, muon, and tau) and to be able to distinguish electron neutrinos from the others.

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Award of Excellence winners: (left to right) J. Richard Bond, Arthur B. McDonald, and John P. Smol.

The two other finalists for the NSERC Herzberg Medal were **John P. Smol**, also of Queen's University, and **J. Richard Bond** of the University of Toronto. Each received the **NSERC Award of Excellence** which consists of a crystal sculpture. Drs. Smol and Bond also received $50,000 each in research support.

John Smol transformed paleolimnology and the study of ancient lake sediments into one of the hottest fields in ecology and a powerful tool for revealing how aquatic organisms interact with their environment and respond over time to climate change.

Richard Bond is one of the world's leading cosmologists. He is responsible for major new insights into the nature of dark matter and black holes and for greatly expanding our knowledge of the structure and evolution of the early universe.

The Medal selection process involved both international peer review of the nominees and adjudication by a distinguished NSERC jury. This year's panel was chaired by Dr. Gretchen Harris, a member of NSERC's Council, and a professor at the University of Waterloo.

The winners of NSERC's E.W.R. Steacie Memorial Fellowships, Howard Alper Postdoctoral Prize, and Doctoral Prizes, who were also presented with their awards, were featured in the March 2003 issue of *Contact* (www.nserc.gc.ca/pubs/contactbk_e.htm).

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E.W.R. Steacie Memorial Fellows: (left to right) Zonchao Jia, Gary W. Saunders, Molly Shoichet, and Kim J. Vicente. Missing from the photo are Victoria Kaspi and Michel Gingras.

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NSERC Vice-President Joanne Keselman and NSERC President Tom Brzustowski (right) with T. Ryan Gregory, winner of the NSERC Howard Alper Postdoctoral Prize.

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Doctoral Prize winners: (left to right) Martin Dvorak, David J. Vocadlo, Erik Demaine, and David L. Bryce.

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