

Contact

Investing in people, discovery and innovation

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The Environment at NSERC

What can we do as a nation, as individuals and in our organizations to protect the environment? This is a question millions of Canadians are asking. And it is a question that the NSERC community has been addressing for many years.

NSERC first targeted the environment in 1978 as one of a limited number of national priorities for accelerated funding through the Strategic Projects program. Since then, through each of our five-year reviews of strategic areas, the environment has consistently remained a top priority for funding.

Today, NSERC, on behalf of the Government of Canada, is the largest source of funding for university research and training in environmental science, technology and innovation (STI).

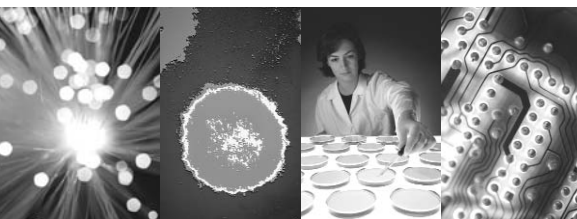
NSERC-funded environmental research topped \$114 million in 2005-06, representing an increase of 72 per cent in the past five years. This priority funding is part of our commitment to build a strong, multidisciplinary, environmental research base that is plugged in globally. The result of this ongoing investment is a strong research base with an international reputation for excellence and impact.

Gaining a better understanding of our various ecosystems, from the oceans to the forests and everything in between, is vital for sound policy decision-making and effective environmental regulations. NSERC's support spans virtually every area of environmental concern, from clean air, water and food safety to waste recycling and sustainable energy. Indeed, the breadth of environmental STI funded by NSERC is unrivalled in Canada. The largest field of environmental research is climate change – the area of utmost concern to all stakeholders. In this area, NSERC's



Suzanne Fortier

Denis Drever Photography



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The Natural Sciences and Engineering Research Council (NSERC) is a key federal agency investing in people, discovery, and innovation. It supports both basic university research through research grants, and project research through partnerships among postsecondary institutions, government and the private sector, as well as the advanced training of highly qualified people.

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environmental STI investment is directed at understanding and predicting, as well as mitigating, the impacts of weather and climate change.

NSERC has been proactive not only in building a strong research base, but also in connecting this capacity to those who can apply the research results to benefit our environment, economy and society. Through its partnership programs, NSERC is stimulating collaboration among universities, governments (at all levels), businesses and non-profit organizations to build the critical mass of expertise required to address complex environmental challenges and accelerate the transfer of know-how that can reduce our environmental footprint. This leverage of activity and funds results in a total environmental R&D effort that more than doubles the NSERC investment.

Environmental innovations, which typically entail practical problem solving, often culminate in the creation of entirely new environmental industries, or in the greening of more traditional ones, including the natural resource sectors that form the backbone of Canada's economy. By stimulating our resource industries to become more eco-friendly through research partnerships with our universities, we are enhancing their competitiveness in the global marketplace. In effect, we are better positioning Canadian companies to address the ever-growing demand of businesses and consumers for products and services that respect the environment.

Through its investments, NSERC and its community have placed Canada at the forefront in key areas of environmental STI. To maintain our leadership, Canada needs a steady and growing supply of highly skilled people. Accordingly, out of NSERC's total investment in environmental STI, more than half is currently allocated to training the next generation of environmental scientists and engineers. These are the experts who will bring their skills, imagination and creativity to bear in solving the myriad environmental challenges we will face going forward.

Canadians are deeply interested in having meaningful conversations about the health of the environment. For our community, it is a unique and an important opportunity to give back and share our scientific knowledge.

A handwritten signature in black ink that reads "Suzanne Fortier".

Suzanne Fortier
President, NSERC

Major Resources Support Program: Changes to Application Procedure

Screening of prospective applications to the Major Resources Support (MRS) program is being implemented with the 2008 competition. Anyone wishing to apply to the program must first complete and submit the updated Form 181 – Letter of Intent to Apply to a Major Resources Support (MRS) Program. The Letters of Intent to Apply will undergo a review process to ensure that the resources meet the program's objectives and key guidelines. Only those applicants whose Letters of Intent to Apply are accepted will be invited to put forward a grant application.

For resources being reviewed by the Subatomic Physics Grant Selection Committee (GSC 19), Form 181 will solely be used to determine the most appropriate review mechanism for the application.

For more details about the review process, visit www.nserc.gc.ca/en/mrs.

NSERC Presents International Polar Year Researchers

In Canada and throughout the world, March 1 marked the beginning of the fourth International Polar Year (IPY), which will focus the efforts of researchers around the world on the north and south polar regions.

To mark the launch of this two-year long initiative, NSERC held a special public forum on March 9, allowing those interested in polar research to meet some of the NSERC grantees who will be conducting research in Canada's North and learn more about their work. About 65 people attended the event, including other scientists, students and members of the general public with an interest in the changing northern environment and what scientists are doing about it.

NSERC is involved in IPY through a \$6-million investment in the research activities of eleven groups of Canadian researchers, who are being supported through the Special Research Opportunities Program. The research projects of these groups are all part of larger international efforts to examine a wide range of physical and biological research topics, from the impact of climate change on northern glaciers to the biodiversity of northern ecosystems.

Falling on the 125th anniversary of the first IPY, IPY 2007-08 is organized through the International Council for Science and the World Meteorological Organization, and follows those in 1882-3, 1932-3, and 1957-8. In order to have full and equal coverage of both the Arctic and the Antarctic, IPY 2007-08 covers two full annual cycles, from March 2007 to March 2009, and will encompass over 200 projects, with thousands of scientists from over 60 nations.



NSERC grantees participating in the March 9 event were (from left) Gilles Gauthier, Université Laval; Martin Sharp, University of Alberta; Warwick Vincent, Université Laval; Susan Kutz, University of Calgary; André Rochon, Université du Québec à Rimouski; David Barber, University of Manitoba; David Hik, University of Alberta; Greg Henry, University of British Columbia; and Jeff Kavanaugh, University of Alberta.

NSERC at the AAAS

The 173rd Annual Meeting of the American Association for the Advancement of Science (AAAS) was held in San Francisco, February 15 to 19. This year's theme, "Science and Technology for Sustainable Well-Being," was addressed by more than 800 speakers who came from all over the world, participating in nearly 200 symposia and plenary and topical lectures.

NSERC had a strong presence at this year's meeting. NSERC's booth was a resounding success with a steady stream of visitors who dropped by for information on the Council, the partners represented at the booth, and the many opportunities for students and researchers in Canada. The partners were the Canada Foundation for Innovation (CFI), the Social Sciences and Humanities Research Council, the Canadian Institutes of Health Research, the Association of Universities and Colleges of Canada, and the Canadian Biotechnology Secretariat.

Also, NSERC hosted the Canadian Delegation Reception in the Hotel Nikko. NSERC President Suzanne Fortier welcomed guests, and Marc LePage, Canadian Consul General to San Francisco, spoke, as did Dr. Eliot Phillipson of CFI.

NSERC had excellent media coverage of many of its Canadian researchers. Profiles of NSERC-funded researchers were picked up internationally (Italy, India, Germany and the U.S. – ABC News), as well as nationally.

Next year's AAAS annual meeting will be held in Boston, February 14 to 18. For more information, please visit www.aaasmeeting.org.



NSERC's booth was a hub of activity during the AAAS annual meeting held in San Francisco in February.

Appointments to Council

In the last few months, the Honourable Maxime Bernier, Minister of Industry and Minister responsible for NSERC, announced the three-year appointments of four new members to the NSERC Council.



Dr. Jillian Buriak, was appointed in January 2007. Dr. Buriak has been a Professor in the Department of Chemistry, University of Alberta, and Senior Research Officer and Group Leader at the National Institute for Nanotechnology since 2003.

Previously, she was an Assistant Professor and Associate Professor of inorganic chemistry at Purdue

University. She recently won a 2007 E.W.R. Steacie Memorial Fellowship. She received her Ph.D. from the Université Louis Pasteur, Strasbourg, France.



Dr. Christopher Essex was appointed in October 2006. He is a Professor in the Department of Applied Mathematics at The University of Western Ontario, and is Director of Western's Theoretical Physics Program. He won a Donner Prize in 2003 for his book on global warming, *Taken by Storm*. He has held a Humboldt Fellowship in Frankfurt, Germany, and an NSERC postdoctoral fellowship.



Dr. H.E.A. (Eddy) Campbell was appointed in February 2007. He is a mathematician holding two degrees from Memorial University of Newfoundland, and a Ph.D. from the University of Toronto. Before taking up his current post of Vice-President (Academic) at Memorial in 2004, Dr. Campbell was an Associate Dean of the Faculty of Arts and Science at

Queen's University in Kingston, Ontario. His main research interest is the invariant theory of finite groups. He served as President of the Canadian Mathematical Society from 2004 to 2006.



Dr. Eugene McCaffrey was also appointed in October 2006. He began his career as an R&D chemist and recently retired from Cognis Canada Corporation/Henkel Canada Ltd., where he was Business Director (Oleochemicals). He was previously Director, Technical and Quality Performance, and Manager, Research and Development. He obtained his

M.B.A. from the University of Toronto, and his Ph.D. in Industrial Chemistry and B.Sc.(Hon.) from Queen's University Belfast. A recipient of industry awards for his contributions to Henkel Canada Ltd., Dr. McCaffrey holds six patents covering the development of nickel catalysts.

NSERC Reps and Regional Offices Meeting

The first biennial meeting between the NSERC Representatives, who are based at universities where NSERC supports research, and the regional offices was held in Ottawa earlier this year. It was exciting to learn how active and creative the Reps have become and how broad an audience they are targeting.

Promotion activities are directed at different educational levels, ranging from elementary school students to post-docs. The activities themselves range from introducing students to the scientific method to helping link graduate students to potential employers. A number of Reps also described activities for the general public, including public seminars and presentations at Rotary clubs or chambers of commerce.

The regional offices presented highlights of their activities and discussed concerns and initiatives in their respective regions, thereby demonstrating the importance of NSERC's regional presence and the Council's growing involvement in local communities and endeavours. The regional offices are also active in promoting access to NSERC programs and in assisting NSERC staff on their regional visits.

The meeting was attended by 44 of the 67 NSERC Reps, all of the regional office staff and several staff from headquarters in Ottawa.

Awards

Top Cosmologist Wins NSERC's Herzberg Medal

Canada's pre-eminent cosmologist, Richard Bond of the University of Toronto, has won Canada's top science prize – the Gerhard Herzberg Canada Gold Medal for Science and Engineering. Dr. Bond was presented with the award during a ceremony held March 19 in Ottawa.

The Herzberg Medal, awarded annually, comes with a guarantee of \$1 million in research funding from NSERC over the next five years.

The two runners-up for the award, Gilles Brassard of the Université de Montréal and John Jonas of McGill University, each received an NSERC Award of Excellence and a \$50,000 research grant.

Dr. Bond has been an internationally recognized, inspirational leader throughout the current 25-year golden age of cosmological discovery. He is responsible for major insights into the evolution of the cosmic web of galaxies we observe from tiny fluctuations generated in the early universe and the definitive role played by dark matter, dark energy and black holes.

He has developed the theory and experimental analysis of the cosmic microwave background (CMB) radiation, the photon afterglow of the Big Bang, into a high precision tool for measuring basic cosmological parameters encoding the content and architecture of the cosmos. Increasingly sophisticated international CMB projects, in which Dr. Bond played a key role as a theoretician, captured startling new images of the universe 380,000 years after the Big Bang. Armed with his novel and powerful statistical approaches, his various teams uncovered evidence for the mysterious dark energies that continue to accelerate the expansion of the universe.

As a founding member and past-director of the Canadian Institute for Theoretical Astrophysics at the University of Toronto and as Director of the Canadian Institute for Advanced Research Cosmology and Gravity Program, he has been an inspirational mentor and builder of an outstanding global network that has established Canada's pre-eminent international position in cosmology. Dr. Bond's ongoing research utilizes a new round of high precision CMB experiments, on satellites, balloons and the ground, to further explore the physics operating in the early and late universe.

NSERC Awards of Excellence

Prof. Brassard is the founder of quantum information processing in Canada and one of its pioneers worldwide. In the past three decades, he has played a pivotal role in transforming this field from a fringe pursuit into an exciting and dynamic research area, which is vigorously pursued internationally. Along the way, he has invented both quantum cryptography and quantum teleportation, which are universally recognized as fundamental cornerstones of the entire theory. Just as quantum mechanics



Dr. Richard Bond (centre), this year's winner of the Gerhard Herzberg Canada Gold Medal, with the winners of the NSERC Awards for Excellence, Prof. Gilles Brassard (left) and Dr. John Jonas.

revolutionized physics in the 20th century, Prof. Brassard's work could have profound implications for computer science throughout the 21st century.

During four decades of research into the challenges of manufacturing better steel, Dr. Jonas has made major strides in advancing fundamental aspects of metal physics as well as improving industrial processes. As a result of his world-leading work in the high-temperature deformation of metals, manufacturers can now produce stronger, more formable steel for cars as well as tougher, more fracture-resistant steels for oil and gas pipelines. His innovations include developing laboratory simulations that model microstructural changes in steel during rapid cooling in a rolling mill. Studying metallic meteorites that have cooled down extremely slowly has also provided valuable insights. Many of these microstructural changes were first identified and characterized at McGill University.

2006 Brockhouse Canada Prize Announced

On January 31, NSERC President Suzanne Fortier announced the winning team for the 2006 Brockhouse Canada Prize for Interdisciplinary Research in Science and Engineering, at a ceremony held in Winnipeg.

The team is comprised of researchers from the University of Manitoba, Agriculture and Agri-Food Canada and MDX Sciex. By selecting this team as the 2006 prize recipient, NSERC recognizes its exceptional achievements in developing and refining new analytic methods for proteins and glycoproteins based on mass spectrometry, and their applications in medicine and biology.

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The University of Manitoba researchers being honoured include Dr. Kenneth Standing, an internationally recognized expert in the development of time-of-flight mass spectroscopy; chemists Harry Duckworth and H  l  ne Perreault; physicists Werner Ens and Oleg Krokhin; and cell biologist John Wilkins. Other members of the winning team are Steve Haber, a plant virologist at Agriculture and Agri-Food Canada, and MDS Sciex scientists Igor Chernushevich, Alexandre Loboda and Bruce Thomson.

The Brockhouse Canada Prize recognizes leading Canadian researchers from different disciplines who have combined their expertise to produce achievements of outstanding international significance in the natural sciences and engineering in the last six years. One prize is awarded every year, and it is accompanied by a team research grant of \$250,000.

Neutrino Researchers Win First NSERC John C. Polanyi Award



Shown at the inaugural NSERC John C. Polanyi Award ceremony are (from left) Dr. Art McDonald, representing the SNO team, NSERC President Dr. Suzanne Fortier and Dr. John Polanyi, for whom the award is named.

A team of researchers from the Sudbury Neutrino Observatory (SNO) received the inaugural NSERC John C. Polanyi Award in November for their groundbreaking research on neutrinos. Among other discoveries, the team solved a 30-year-old scientific riddle by proving that neutrinos, among the smallest subatomic particles, change their “flavour” en route from the sun to the earth.

SNO Director Dr. Art McDonald of Queen’s University accepted the \$250,000 research prize on behalf of the team during a ceremony held at the SNO facility. Although 22 SNO researchers are eligible to receive the award funding, the SNO team is composed of 107 other Canadian researchers and 144 foreign researchers.

The SNO detector sits in a nickel mine two kilometres underground, and consists of 1000 tonnes of heavy water surrounded by an array of sensors that detect tiny pulses of light resulting from collisions between neutrinos and heavy water molecules.

NSERC established the Polanyi Award to honour a recent outstanding advance in the natural sciences or engineering, and in recognition of the ongoing research excellence demonstrated by University of Toronto professor John Polanyi, winner of the 1986 Nobel Prize for Chemistry.

Steacie Fellows Named



This year’s winners of the NSERC E.W.R. Steacie Memorial Fellowships are (from left) Eckhard Meinrenken, Nikolaus Troje, Andrew Roger, Aephraim Steinberg, Gregory Scholes and Jillian Buriak.

The E.W.R. Steacie Memorial Fellowships for 2007 were presented during NSERC’s Tribute to Research Excellence ceremony held in Ottawa, March 19. The fellowships will allow the six winners to devote their full attention to research for two years.

Jillian Buriak of the University of Alberta specializes in nanoscale surface chemistry, developing ways to connect electronic chips with other materials, including biological molecules.

Eckhard Meinrenken of the University of Toronto has advanced the field of symplectic geometry, conducting research that combines pure mathematics and theoretical physics.

Andrew Roger of Dalhousie University analyses genetic data to find relationships between organisms, uncovering dramatic evidence about the timing and nature of evolutionary events.

Gregory Scholes of the University of Toronto works on developing nanocrystal materials that can process light for possible use in areas such as medicine, quantum computing and renewable energy.

Aephraim Steinberg of the University of Toronto unravels the mysteries of quantum mechanics, making discoveries that apply to the development of quantum computing and more precision in measurement.

Nikolaus Troje of Queen’s University analyses the subtle and complex process of how humans and animals perceive and process the movements of others.

For complete profiles of the winners, visit www.nserc.gc.ca/steacie.

Warmer Arctic on Agenda at Parliamentarians' Breakfast

Climate change is making Canada's Arctic a much different place than it was a few decades or centuries ago. As the summer season grows longer, areas of permafrost are now not so permanent and glaciers are shrinking.

And now that researchers know the Arctic is warmer, the key is learning how to deal with the changes. This reality was highlighted by NSERC grantee Dr. Marianne Douglas during a Bacon and Eggheads lecture at Parliament's West Block in February.

One key problem up North is infrastructure. Buildings constructed on permafrost may collapse as the ice melts underneath. Most structures built over permafrost do not have the flexibility to bend as the ground beneath them moves. Douglas, the Director of the Canadian Circumpolar Institute at the University of Alberta, added that the proposed Mackenzie gas pipeline, which was engineered to be built on soils with high ice content, will have to be redesigned to take into account potential ground instability and slope failure as the permafrost melts. Failure to do so could mean an environmental catastrophe if the pipeline were to be damaged and spring a leak.

Another concern raised by Douglas is the amount of carbon dioxide in the atmosphere. Increases in these greenhouse gases cause ground temperatures to rise. Making the Arctic even a few degrees warmer will greatly affect its ecosystem, altering the habitat of so many of the animals that depend on ice conditions to survive.

Polar bears, for example, face shorter feeding seasons because they cannot hunt on the ice as long as they used to, Douglas said. With less food available, the bears do not have as much fat to protect themselves and help them through the winter. Female polar bears cannot produce as much milk for their cubs, who tend to be born smaller because food is scarcer.



Bronwyn Keatley

Dr. Marianne Douglas prepares to take a sediment core from Stygge Nunatak on Ellesmere Island, Nunavut. A nunatak is a piece of land surrounded by a glacier.

Bacon and Eggheads is a series of lectures that features prominent NSERC researchers, held monthly while Parliament is in session. The aim is to present ongoing scientific issues to members of Parliament, senators and the media in a non-partisan and easily understandable format.

NSERC is a co-sponsor of the breakfast. Other sponsors include the speakers of the House of Commons and Senate, as well as the Partnership Group for Science and Engineering, which is a Royal Society umbrella group of more than 20 organizations.

News from the Regions

NSERC-Atlantic: Apple Co-Founder Visits Mount Allison University



Pictured in front of NSERC-Atlantic's kiosk are (from left) Patrice Audy, Manager, NSERC-Atlantic; Robert Campbell, President, Mount Allison University; Steve Wozniak; and Catherine Vardy, Research Promotion and Development Officer, NSERC-Atlantic.

Steve Wozniak, the man who helped smooth the technological highway by co-inventing the first Apple computer, was at Mount Allison University on January 16, to deliver the Wilford B. Jonah Lecture. To capitalize on the opportunity, Dean of Science, Dr. Jeff Ollerhead, applied for and received a Discretionary Grant from NSERC-Atlantic to host a networking dinner and IT research showcase before the lecture.

Guests from industry, academia and the student population attended the dinner, and all were eager to meet Wozniak. The dinner also allowed students in math and computer science to network with potential employers. The research showcase attracted industry attention: Blizzart Conseil Inc. is interested in the software developed by classics professor Dr. Bruce Robertson; cryptographer Dr. Liam Keliher was approached by gaming and security companies about possible collaboration opportunities; and Dr. Laurie Ricker discovered a researcher working in her field at the Université de Moncton.

The public lecture, which attracted an audience of over 1,500, was followed by a reception where about 300 people had an opportunity to meet with Wozniak.

NSERC-Pacific Official Launch

On March 12 in Vancouver, NSERC President Suzanne Fortier officially opened the Council's third regional office, NSERC-Pacific. The opening took place at the Vancouver Museum before an audience of over 100 academics and business and government representatives.

NSERC Executive Vice-President Nigel Lloyd, connected via videoconference, welcomed NSERC-Pacific on behalf of his Ottawa colleagues. In addition, NSERC-Atlantic and NSERC-Prairies sent recorded video salutations.

Ken Armour of the B.C. Ministry of Advanced Education noted the increase in provincial/federal collaboration that is made possible by NSERC's regional presence, and Grant Ingram of the University of British Columbia commented that the office will be of great assistance to the B.C. NSERC Reps.

The NSERC-Pacific staff – Rick Warner, Pam Giberson and Megan Griffith – are now positioned to fulfill their triple mandate of presence, participation and promotion.

You may contact Rick and his staff at 604-666-8818 or nserc-pacific@nserc.ca.



NSERC-Pacific Manager Rick Warner (left), NSERC President Dr. Suzanne Fortier and NSERC Director, Corporate and Regional Development William Coderre celebrate the launch of the Council's newest regional office.

NSERC-Prairies: Staff Update



NSERC-Prairies Manager
Guy Levesque

On January 31, the team at the NSERC-Prairies office said farewell to Manager Ray Hoemsen. Ray has completed his secondment with NSERC and resumed his duties at Red River College as Director, Applied Research & Commercialization.

Ray performed double duty for a year-and-a-half, working for both NSERC and Red River College.

During this time, he oversaw the opening of the NSERC regional office and worked

with community colleges looking for entry into NSERC's programs. With Ray's assistance, there are now five NSERC-eligible colleges in the region.

Ray also established important links with the innovation sectors of the Prairie region, including federal departments and provincial ministries involved in innovation and the considerable industrial and not-for-profit sectors.



From left, Irene Mikawoz, Roxanne Balcaen, Ray Hoemsen and Alfonz Koncan at a lunch in Ray's honour.

Stepping up to the plate as the new manager of NSERC-Prairies is Guy Levesque. Guy is already known to many in the NSERC community. Between 1998 and 2002, he worked at NSERC in Ottawa. Guy has also worked for the Canada Foundation for Innovation and, most recently, for the University of Manitoba, supporting the development of large-scale institutional research initiatives. Guy holds a Masters degree in Earth Sciences (Geochemistry).

Strategic Workshops Program: New Program to Reduce Barriers to Partnerships

The new Strategic Workshops Program (SWP), launched on March 13, is a three-year pilot initiative. The program supports workshops designed to build new partnerships between Canadian researchers and non-academic partners such as industry and government organizations. The workshops will be organized and co-led by university researchers and their non-academic partners. Under the program, NSERC will award up to 40 one-time grants of \$25,000 over three years, for the purpose of arranging workshops.

The SWP joins other NSERC strategic partnership programs that fund research in seven target areas of national importance, complementing in particular the Strategic Project Grants and the Strategic Network Grants programs. NSERC-eligible applicants may submit a proposal to the SWP at any time.

For more information on the SWP, please see the Program News section of the NSERC Web site. For questions and comments, contact Réginald Thériault at 613-996-5879 or reginald.theriault@nserc.ca.

Idea to Innovation Program Impetus for New Enterprise



Jill Green, CEO, Green Imaging Technologies

A recent grant to the University of New Brunswick (UNB) from NSERC's Idea to Innovation (I2I) program has played a pivotal role in creating a new enterprise in Fredericton.

The \$190,000 NSERC award to UNB's Materials Science Magnetic Resonance Imaging Research Centre was mainly

intended to commercialize a unique tabletop MRI/centrifuge engineered by Dr. Bruce Balcom, Director of the Centre.

But it's now clear the grant has had a much bigger impact. It was the clincher for repatriating one of Balcom's first students and his wife – Derrick and Jill Green, both highly qualified engineers – and was crucial to the young couple's success in assembling \$1 million for their start-up business, Green Imaging Technologies (GIT). The company is working closely with Balcom to exploit the capabilities of the new MRI/centrifuge.

"I2I was definitely the impetus for us to return from the U.S.," recalls GIT CEO Jill Green, a civil engineer with expertise in water quality and treatment. "We never really wanted to leave Fredericton, but there were really no opportunities here for Derrick after he earned his PhD (in MRI electrical engineering)."

The MRI/centrifuge, which can be used to measure the flow of water and oil in petroleum reservoir core samples, has already attracted considerable interest from senior technical staff at Chevron

Corporation. They acknowledge it could supply high-quality core assessments, faster and more cost-effectively than traditional centrifuges.

Part of the I2I funds will be used by Balcom's lab to validate the UNB technology by benchmarking against traditional tools. At the same time, GIT will collaborate with Houston-based CoreLab, the world's largest oil services company, to conduct a market validation trial.

"The link we sustain with Bruce's lab through I2I," says Jill, "has certainly enhanced our credibility, not only with investors, but also technical experts in the petroleum industry."

Balcom, meanwhile, notes that his NSERC Discovery Grants were really key to nurturing the idea of applying MRI in the oil patch.

"This innovation happened," he says, "because of 10 years of NSERC support. What's really great about I2I is that it allows us to bring that discovery research to life."

NSERC Launches IP Consultations

This spring, NSERC is launching stakeholder consultations to determine if its Intellectual Property (IP) policy still supports its mandate to realize the maximum benefit for Canada of research that is partially funded by the taxpayer.

NSERC's current policy on Intellectual Property aims to provide access to IP developed in whole or in part using NSERC funding so that the results may be exploited for the benefit of Canada. The policy provides guidelines with respect to ownership, licensing and publication to ensure that university researchers retain the right to use their research results for academic purposes and students are free to defend and publish their theses. In recent years, a number of issues have been raised by our stakeholders related to this policy.

The results of the consultations will be reviewed by an advisory panel comprised of representatives from university and industry, as well as IP policy experts. The panel will provide recommendations to NSERC on the possible revision of its current IP policy and its implementation.

For more information, contact Stéphanie Michaud, Account Manager, Research Partnerships Program, at 613-944-7533 or stephanie.michaud@nserc.ca.

International Review of Discovery Grants Program

NSERC is presently constituting an International Review Committee, to examine the Discovery Grants Program and its success rates in the context of NSERC's suite of programs and other programs in Canada that support research in the natural sciences and engineering.

The blue-ribbon committee is being formed in response to the findings of the federal government's Review of the Granting Councils, which made the following recommendation.

"NSERC should commission an international review team and consult the relevant Canadian stakeholders to determine whether its current awards/applicants funding ratio of 75% in discovery research is consistent with international standards of excellence and whether this funding approach is appropriate. The results of this review should be communicated to the government and made public."

Members of the committee will be drawn from foreign universities and granting agencies. They will have broad perspectives of the natural sciences and engineering fields and will be familiar with the main issues facing research in these fields.

The Canadian research community will have an opportunity to provide input during the process, through consultation with scientific societies, groups of department chairs, deans, vice-presidents (research) and university presidents. In addition, individual researchers will have the opportunity to share their views through a Web survey to be carried out in late spring or early summer.

Regular updates on the review will be posted on NSERC's Web site.

NSERC Reviews Structure of GSCs

NSERC depends on Grant Selection Committees (GSCs) for advice on the funding of Discovery Grants applications. Since NSERC's creation, the GSCs have been providing high-quality peer review and making a tremendous contribution on behalf of the Canadian university research community. These two elements – quality and dedication – are what give credibility to the funding decisions.

NSERC now supports more than 10,000 researchers through this program, and the continual expansion of the program has led to a growing number of increasingly specialized committees. As new subject areas emerge and research programs become more multi-disciplinary, the current structure of the GSCs may not be optimal.

NSERC is initiating a review of the GSC structure. The objective is to define and implement a structure and processes that will position the GSCs for today and the next 10 years. NSERC will be guided by an external Advisory Committee chaired by Dr. Adel Sedra, Dean of Engineering at the University of Waterloo, and former Vice-President and Provost of the University of Toronto. The review project will involve extensive consultation with university administrators, scientific societies and other members of the research community.

For more information or comments, contact Dr. Andrew Woodsworth, Project Director, at andrew.woodsworth@nserc.ca.

Upcoming Nomination Deadlines

Don't miss the deadline for submitting your nomination for the following awards:

E.W.R. Steacie Memorial Fellowships	July 4
Michael Smith Awards for Science Promotion	September 1
NSERC Doctoral Prizes	October 1

For information on these and other awards and the nomination procedures, visit www.nserc.gc.ca/en/prizes.

NCEs Annual Conference Recognizes Research Leaders

Under the theme “Mobilizing Research Excellence, Creating Value,” the Networks of Centres of Excellence (NCEs) held their annual conference last December, in Ottawa. The conference attracted over 200 NCE senior executives, researchers, their partners from government and industry, and graduate students to discuss how NCE research benefits partners and stakeholders and impacts their sectors. Participants also explored best practices in taking social, health and economic benefits to Canada.

The conference was also the occasion to recognize those who are contributing to the program’s success. At a ceremony held December 5, the Honourable Maxime Bernier, Minister of Industry, announced this year’s winners of the NCE Young Innovators Awards. These awards recognize outstanding individuals who, with the help of their network, have been exceptionally successful in transferring and applying their innovative research to market for the benefit of Canadian society.

The winners are Dr. Marlene Bagatto, a research associate at The University of Western Ontario, whose research has led to the adoption of new clinical procedures for fitting hearing aids in children, and Dr. Brett Poulis, Chief Scientific Officer of FloraPure BioSciences, a Victoria-based biotech company, for his research into how Douglas firs protect themselves from pathogens.



The Honourable Maxime Bernier, Minister of Industry, presents the inaugural Chairs Award of Excellence to Dr. Christian Messier (right).

The inaugural Chairs’ Award of Excellence, which recognizes NCE researchers who have made a significant contribution to achieving the NCE goals, was presented to Dr. Christian Messier, for his groundbreaking work in forestry. Dr. Messier is a professor of Biological Sciences at the Université du Québec à Montréal and principal investigator of the Sustainable Forest Management Network.

This year’s conference included a joint session with senior government policy and decision makers to discuss the future of the NCE program. Other plenary sessions provided participants with an opportunity to discuss how networks help their stakeholders address gaps and create new opportunities.

Individually and collectively, the NCEs are addressing some of today’s most pressing issues. From the impact of global warming in the Arctic and water quality in our cities, to smart structures, stem cell research and the prevention and cure of allergies, they are advancing and transferring knowledge to users in all sectors.

In other news, in line with the NCE Terms and Conditions, an evaluation of the program is under way and will be completed by fall 2007.