

# NSERC-Atlantic Annual Report 2006-2007



## Message from the Manager

Having completed its third year of operation, the NSERC-Atlantic office has continued to be active throughout Atlantic Canada. This annual report highlights NSERC-Atlantic activities with regards to our mandate of Presence, Program Participation and Promotion in the region.

This past year, our staff participated in almost twice as many events as the previous year and significantly increased the number of visits with both industry and academic institutions.

We also completed a full fiscal cycle with the Discretionary Grant Fund (DGF), recently re-named the Regional Opportunities Fund (ROF). We are quite pleased with the response from our stakeholders; we received 25 applications and spent most of our \$100K allocated to support activities promoting the natural sciences and engineering in Atlantic Canada.

Looking back at the past fiscal year, the Atlantic research community succeeded in increasing its funding in the NSERC Grants and Scholarships competitions, collecting more in number and value than the ratio of its population with the rest of Canada.

Since its opening in 2004, NSERC-Atlantic has seen a sharp increase in the number of applications to the Research Partnerships Programs, and we want to continue encouraging such research collaborations in our region.

These are all excellent reasons to celebrate the successes achieved by our researchers and innovators at universities, colleges and industries across Atlantic Canada.



## Regional Opportunities Fund

The NSERC-Atlantic Discretionary Grant Fund has a new name. To better reflect its goal, it is now called the **Regional Opportunities Fund**.

Each year, NSERC-Atlantic manages \$100,000 in available funds to support regional initiatives that help bring science and engineering closer to our local community.

In 2006-07, the most popular type of applications were for meetings, workshops and conferences, followed by requests for product development such as brochures, displays and Web sites.

NSERC-Atlantic welcomes applications from academic institutions, indi-

viduals, student groups and others to support special events and activities related to the natural sciences and engineering. There is no deadline, but applicants are encouraged to contact NSERC-Atlantic as early as possible before the event or activity to obtain the guidelines and application form.

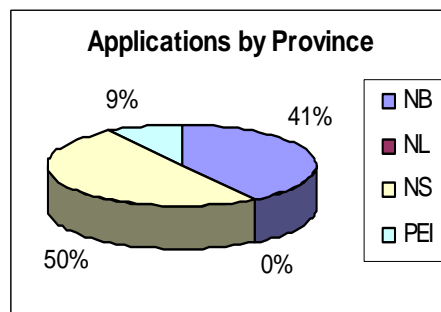
### Regional Opportunities Fund 2006-07

#### By the Numbers...

Dollars spent: \$98,385  
Number of requests: 25  
Number of funded requests: 22  
Average amount awarded: \$4,000

#### Target Groups Funded

Industry-Academia link: 7  
University/College researchers: 7  
Children: 4  
University/College students: 3  
Aboriginals: 1



## The GEEE! in GENOME



Former PEI Premier Pat Binns (right) presents a copy of the proclamation of Biotechnology Week in PEI to Michael Dennis, CEO, Genome Atlantic, and a group of grade nine students from Birchwood Junior High School during the launch of the Gee! in Genome Exhibit.

More than 600 students in grades 7 to 12 had a chance to see the **Gee! in Genome** exhibit in Charlottetown last summer and fall. This dynamic exhibit was Canada's first national, travelling, bilingual exhibition on DNA and genomics.

The Gee! in Genome demystifies the subject of genomics and stimulates interest in the science and the social, legal and ethical issues surrounding it.

The **Prince Edward Island BioAlliance**, with several other partners including NSERC-Atlantic, brought the



exhibit to the Confederation Court Mall, attracting the public and school groups with free admission. Science stu-

dents from the University of Prince Edward Island were hired and many also volunteered to work at the exhibit.

The BioAlliance also provided a suitcase exhibit used by teachers as an introductory or follow-up tool for students visiting the Gee! in Genome exhibit.

## Wozniak at Mount Allison University

**Steve Wozniak**, Silicon Valley icon and co-creator of the first Apple computer, came to Atlantic Canada for the first time in January 2007. Wozniak was in town to deliver the Wilford B. Jonah Lecture at Mount Allison University (MTA).

During his public lecture, Wozniak spoke to over **1,400 people** about his career, his life and the path that led to his many inventions.

NSERC-Atlantic sponsored an industry dinner and networking session before the lecture, which gave students, researchers and industry partners an opportunity to discuss innovation and to meet with Wozniak.



Left to right: Patrice Audy, NSERC-Atlantic; Robert Campbell, President, MTA; Steve Wozniak; Catherine Vardy, NSERC-Atlantic.

## About NSERC-Atlantic

The NSERC-Atlantic regional office brings NSERC closer to students, researchers, and industry. Regional interactions increase our knowledge of local research activities, allowing us to better meet your needs and facilitate your access to NSERC programs.

With the help of the regional office, NSERC can more easily achieve its objectives of further strengthening Atlantic Canada's research capacity and working with our partners to help build a more innovative and sustainable economy.

NSERC-Atlantic serves the people of Nova Scotia, Prince Edward Island, New Brunswick, and Newfoundland and Labrador.

## NSERC on the WEB...

### NSERC:

[www.nserc.gc.ca](http://www.nserc.gc.ca)

### NSERC Contact:

[www.nserc.gc.ca/pubs/contact/contact\\_e.htm](http://www.nserc.gc.ca/pubs/contact/contact_e.htm)

### NSERC-Atlantic:

[www.nserc.gc.ca/about/atlantic\\_e.asp](http://www.nserc.gc.ca/about/atlantic_e.asp)

## Moncton Hosts Regional Offices Meeting



Staff takes a break with the “big” lobster and the friendly fisherman in Shediac, N.B.

Colleagues from NSERC-Pacific, NSERC-Prairies and the NSERC office in Ottawa joined the NSERC-Atlantic team in early June for a regional offices meeting. This week-long event provided an unprecedented opportunity to share successful activities and approaches that advance our common mandate of “Presence, Program Participation and Promotion.”

The meeting also provided a forum for the group to discuss NSERC’s vision, strategic direction and priorities. Staff also received current information on Research Partnerships Programs, discussed communications strategies, and had a session on information management from key NSERC staff.

To help build team spirit, a series of Maritimes-related evening activities gave staff a chance to get to know each other in-person.

Next year’s meeting will be hosted by NSERC-Pacific.

This seminar series linked students from DAL, MUN and UNB.



## NSERC-Atlantic Fast Facts

- 2,126** People attended a presentation by NSERC-Atlantic
- 1,359** People attended events where NSERC-Atlantic had a kiosk
- 500+** Requests or contacts with regional stakeholders
- 135** Events with NSERC-Atlantic participation
- 83** Meetings attended on research and innovation
- 77** Visits to universities and community colleges
- 46** Presentations given
- 29** Visits to industry and non-university research labs
- 11** Events where we staffed a kiosk

## Atlantic Summer Seminar Series

A weekly Summer Seminar Series linked **NSERC Undergraduate Student Research Award** holders from Dalhousie University, Memorial University and the University of New Brunswick, giving them an opportunity to present their research to one another.

The series made use of video conferencing and shared desktop technology, enabling real-time interaction between all three sites. Organized by the D-Drive lab at Dalhousie University, and funded in part by NSERC-Atlantic, the project hired students to run the seminars and to conduct research on the technology and organizational viability of the system.

The Atlantic Association for Research in the Mathematical Sciences is considering this system as a way to offer its courses to a wider audience, potentially starting in autumn 2008.

A Web site for the series may be accessed at <http://ddrive.cs.dal.ca/aarms/cms>.

---

## Canadian Undergraduate Physics Conference 2006

NSERC-Atlantic staff attended the **Canadian Undergraduate Physics Conference (CUPC)** held at the University of New Brunswick in Fredericton, October 20-24, 2006. Close to 200 students and faculty attended this annual event organized exclusively by students of the host university.

The goal of the CUPC is to promote social and intellectual growth while forming and strengthening ties within the physics community.

Noted guest speaker Dr. Robert Romer (PhD, Princeton) captivated students with his insights and humorous thoughts on what it means to be a physicist “in the real world” and talked about his experience as an editor with the *American Journal of Physics*.

Dr. Alain Haché, Assistant Professor at the Université de Moncton, gave an informative presentation titled *The Physics of Hockey*, where he discussed the numerous

elements of physics as they relate to one of Canada’s most popular sports.

NSERC-Atlantic helped sponsor this

event, set-up a kiosk and presented NSERC’s scholarships and fellowships student programs to the audience.



## Research & Development Forum

**Petroleum Research Atlantic Canada (PRAC)**, hosted its first-ever Atlantic Research & Development Forum in St. John’s, N.L., in May 2007.

The event attracted over 150 industry leaders, scientists, engineers, government leaders and other conference participants to discuss the challenges facing the petroleum industry in Atlantic Canada, and how research and development can help.

University researchers and industry representatives shared examples of successful collaborations, and a wrap-up panel led a discussion on future directions.



*Left to right:* Catherine Vardy, NSERC-Atlantic; Dave Finn, President, PRAC; Theresa Anderson, NSERC.

## Two-Eyed Seeing Workshop for Science Education for Children and Youth

Dr. Cheryl Bartlett, Canada Research Chair in Integrative Science, and the Institute for Integrative Science & Health at

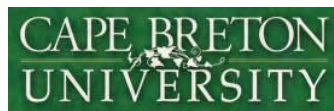


Cape Breton University hosted a one-day workshop in May 2007 to start building science education modules for youth.

**Two-Eyed Seeing** is an approach co-developed by university researchers and Mi’kmaq Elders to encourage cross-cultural science communication and collaboration between traditional scientists and Aboriginals.

Sponsored in part by NSERC-Atlantic, more than 80 Mi’kmaq Elders, scientists, educators, education students and science students participated in the event.

A network has been created to promote and evaluate the use of the Two-Eyed Seeing modules for science education in our region.





---

## FPTT Awards Ceremony

The Federal Partners in Technology Transfer (FPTT) awards ceremony was held in Halifax last June.

The FPTT awards program recognizes individuals in the public and private sectors for their best practices in nurturing products, processes and services that generate wealth in Canada and beyond our borders.

This year, the three winning projects that stood out as models of entrepreneurial drive and innovative success were two joint ventures with Agriculture and Agri-Food Canada in the commercialization of lactic fermentation and plant inoculant technologies, and the commercialization of a mobile magnetic resonance imaging system with the National Research Council Canada (NRC).

Janet Walden, Vice-President of NSERC's Research Partnerships Programs Directorate was a member of the awards review committee. Patrice Audy, NSERC-Atlantic, also participated in this event.



## Canada Wide Science Fair

The Nova Scotia Agricultural College and the Nova Scotia Community College hosted the Canada Wide Science Fair 2007, from May 12-20, welcoming about 500 young scientists from across the country.

Under the umbrella of Youth Science Foundation Canada, this week of science and fun

also involved 170 chaperones, over 300 judges and 400 volunteers.

Cécile LaPlante and Patrice Audy were two of the many judges at the event. **The Atlantic region did well, with 32 award recipients.**

Each year, winners of the Canada Wide Science Fair go on to compete in the Intel International Science and Engineering Fair. In 2008, NSERC will provide the uniforms for Team Canada to attend the Intel Fair in Atlanta, Georgia.

---

## JUMPSTART!

The University of New Brunswick, in cooperation with other partners and NSERC-Atlantic, hosted

**Jumpstart: From Research to Commercialization in the Energy Sector**, a technology commercialization session focused on the energy sector.

Researchers had an opportunity to showcase new energy-related technologies, while research institutions highlighted their capabilities in energy-related research and education. Industry partners were encouraged to identify their needs in the energy sector, including research, technology and human resources.

Catherine Vardy from NSERC-Atlantic gave a presentation and set up a kiosk to promote NSERC's Research Partnerships Programs.



The Centre for Research in Youth, Science Teaching and Learning (CRYSTAL Atlantique) is a collaboration of school, community, and university-based educators and researchers.

CRYSTAL Atlantique brings together an English and Francophone research team consisting of educators, scientists, experts in related disciplines, the New Brunswick and Nova Scotia Departments of Education, and community organizations.

The CRYSTAL Atlantique team is studying informal learning. Informal learning takes place outside the classroom or university and includes a range of learning opportunities from clubs and organizations to museums and science centres, as well as individual learning through everyday experience. To date, there are eleven initial research projects studying the effects of/interaction of informal education on the culture of science, mathematics, and technology.



## Did you know?

- ⇒ In addition to the Atlantic, Prairies and Pacific offices, NSERC is slated to open two new regional offices, one in Quebec and one Ontario, in the next year.
- ⇒ As part of NSERC's goal to strengthen its foundation for external relations, a position of Vice-President, External Relations and Communications is being created in Ottawa.
- ⇒ The 2007 Synergy and Innovation Awards Challenge Presentation will be held on Monday, October 29th, at the Fairmont Château Laurier, Ottawa. For more info, visit [www.nserc.gc.ca](http://www.nserc.gc.ca).
- ⇒ The NSERC-Atlantic office regularly supports and attends regional science and engineering events. Contact us for info on how we can participate in your event with a kiosk, presentation and/or promotional items.

## NSERC I2I Goes GREEN

**Green Imaging Technologies, Inc. (GIT)** hosted an open house in the MRI Research Centre at the University of New Brunswick (UNB) in November 2007, to demonstrate their prototype capillary pressure instrument and to announce \$250,000 in funding from the Atlantic Canada Opportunities Agency (ACOA).

GIT has now raised more than \$1M in financing, most of it from private sector investors in the region. Representatives from ACOA, the university, NSERC-Atlantic, investors and government attended.

Dr. Bruce Balcom, Director of the MRI Research Centre at UNB, credits part of the company's success to an NSERC Idea to Innovation (I2I) grant, which allowed them to focus on applying for a patent and to develop a commercialization strategy. GIT became a partner on the second phase of the I2I application, which CEO Jill Green says helped them progress quickly as a spin off company.



**Jill Green**

## Geomatics - Mapping our World

In February 2007, a two-day workshop titled Integrating Environmental and Geomatics Technologies for a Sustainable Environment was organized by the **Applied Geomatics Research Group (AGRG)** from the Nova Scotia Community College. It brought together many researchers, students, industry partners and funding agencies.



David Woolnough, Director, Applied Research, Nova Scotia Community College, welcoming workshop participants in Enfield, Nova Scotia.

Geomatics is the science of data collection, spatial analysis, database management and visualization of the earth's geography. The technology includes geographic information systems, global positioning systems and remote sensing.

Sponsored by NSERC-Atlantic, the workshop provided participants with an update on the applications of geomatics technologies at AGRG, an opportunity to discuss future research plans, and potential funding from NSERC and the Atlantic Innovation Fund (AIF).

Catherine Vardy from NSERC-Atlantic gave a presentation on NSERC's Research Partnerships Programs. Five companies that participated in the workshop have provided support for an AIF submission.

At the end of the workshop, Tim Webster and Bob Maher of AGRG and Mike Pearson of GeoNet Technologies Inc. were interviewed by the CBC Evening News.

## NSERC Eligible Institutions

### NEW BRUNSWICK

#### Universities

Université de Moncton  
Mount Allison University  
University of New Brunswick  
St. Thomas University

#### Colleges

Collège communautaire du Nouveau-Brunswick, Campus de Bathurst

### NOVA SCOTIA

#### Universities

Acadia University  
Cape Breton University  
Dalhousie University  
Mount Saint Vincent University  
Nova Scotia Agricultural College  
Université Sainte-Anne  
St. Francis Xavier University  
Saint Mary's University

#### Colleges

Nova Scotia Community College,  
Annapolis Valley Campus

### NEWFOUNDLAND AND LABRADOR

#### Universities

Memorial University of Newfoundland

#### Colleges

College of the North Atlantic

#### Affiliated University

#### Research Centre

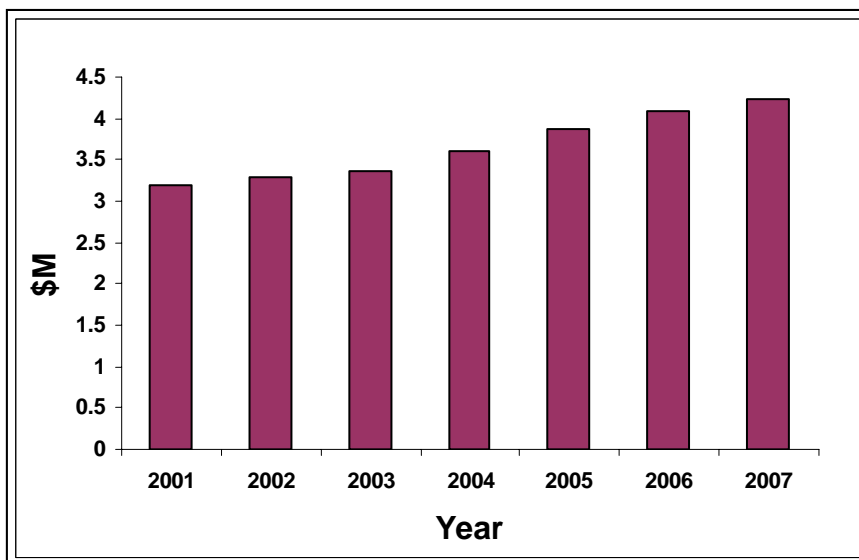
Centre for Cold Ocean Resources  
Engineering (C-CORE) at MUN

### PRINCE EDWARD ISLAND

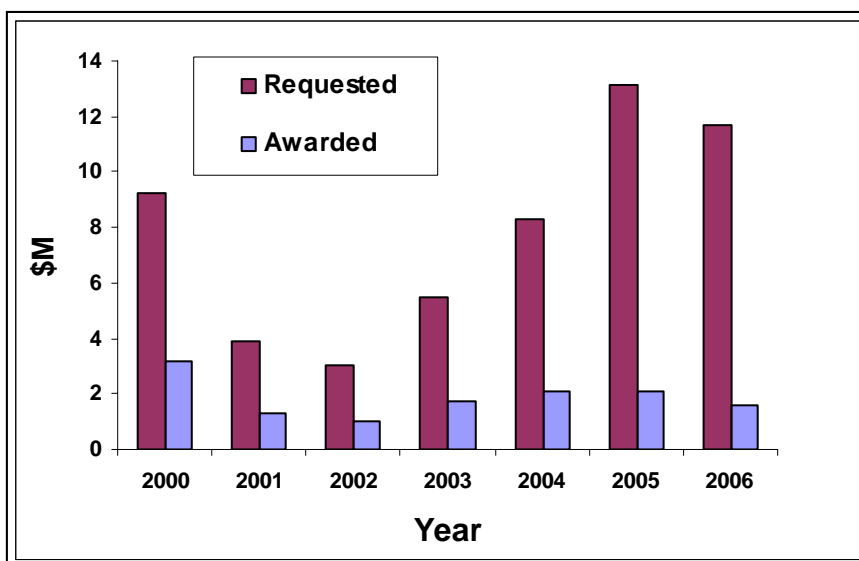
#### Universities

University of Prince Edward Island

## NSERC in Atlantic Canada



**2001-2007 NSERC Grants and Scholarships  
Expenditures in Atlantic Canada**



**2000-2006 NSERC Research Partnerships  
Programs (RPP) in Atlantic Canada**

NSERC regularly publishes a collection of the most commonly requested statistics about the Council and other related science and education data.

**NSERC Facts and Figures:**

[http://www.nserc.gc.ca/about/fact\\_e.asp](http://www.nserc.gc.ca/about/fact_e.asp)

---

## NSERC-Atlantic Advisory Committee Members

Elizabeth Beale  
President and CEO  
Atlantic Provinces Economic Council

John Blackwell  
Director, Research Grants Office  
St. Francis Xavier University

Andrew Bohen  
Associate VP Research  
Université de Moncton

Carl Breckenridge  
VP Research  
Dalhousie University

Eddy Campbell  
NSERC Council Member  
Memorial University of Newfoundland

Anthony Davis  
Associate VP Research  
Mount Saint Vincent University

Cyril Farrell  
Executive Director, Atlantic Provinces  
Community College Consortium

Robert Gordon  
Director of Research  
Nova Scotia Agricultural College

Peter Halpin  
Executive Director  
Association of Atlantic Universities

Patricia Hearn  
Regional Executive Director  
Industry Canada, Atlantic Region

Dennis Hogan  
ADM, Innovation, Research &  
Advanced Technologies of N.L.

Judith Holton  
Chair, Research and Innovation  
Holland College

Mohammad Iqbal  
Chair, Office of Applied Research  
College of the North Atlantic

Gregory Kealey  
VP Research  
University of New Brunswick

Nicole LeBlanc-Richard  
Industrial Technology Advisor  
National Research Council-IRAP

Phil LePage  
ADM, Business Development  
Business New Brunswick

Christopher Loomis  
VP Research  
Memorial University of Newfoundland

Jeffrey MacCallum  
Director  
Nova Scotia Economic Development

Stephen McClatchie  
VP Academic & Research  
Mount Allison University

Paul Mills  
Vice-President N.L.  
Atlantic Canada Opportunities Agency

Terry Murphy  
VP Academic & Research  
Saint Mary's University

Sylvain Poirier  
Assistant Director, Development and In-  
novation, NBCC

Robert Raeside  
Acting Dean of Science  
Acadia University

Katherine Schultz  
VP Research and Development  
University of Prince Edward Island

Anthony Secco  
VP Academic and Research  
Cape Breton University

Sara Jane Snook  
Executive Director  
Springboard

Gailene Tobin  
Director, Science and Innovation  
PEI Business Development Inc.

Mary Anne White  
NSERC Council Member  
Dalhousie University

David Woolnough  
Director Applied Research  
Nova Scotia Community College

## Committee Meets in PEI and NL

The **NSERC-Atlantic Advisory Committee** met in Charlottetown in November 2006 and in St. John's in May 2007. These occasions brought together a select group of senior managers from Atlantic academic institutions, governments and industry. The Advisory Committee plays a significant role in guiding the actions of NSERC-Atlantic in developing research, innovation and advanced training in the region. These meetings also help keep members up-to-date on new and ongoing initiatives in both the regional office and at NSERC in Ottawa. A special feature of these meetings is a tour of a local research facility or university laboratory at the end of the afternoon.

After the November meeting, members toured the National Research Council Institute of Nutrisciences and Health, led by Dr. Michael Mayne, Director of Research. This new, modern facility allows scientists to study how bioactive compounds found in nature can be used to improve human and animal health.

Following the May meeting, members were invited to the Ocean Sciences Centre, which operates in conjunction with Memorial University of Newfoundland. Here, members were guided through the many research laboratories where studies are conducted on the North Atlantic fishery, aquaculture, oceanography, ecology, behaviour and physiology.



Advisory Committee members at the Ocean Sciences Centre.



---

## Women in Science and Engineering

At the May 2007 Advisory Committee meeting in St. John's, N.L., NSERC-Atlantic was pleased to receive **Dr. Cecilia Moloney**, NSERC/Petro-Canada Chair for Women in Science and Engineering, Atlantic Region (CWSEA), as our guest speaker.

Dr. Moloney gave an overview of the challenges, opportunities, activities and guidelines for successful strategies for increasing the participation of women in science and engineering as students and professionals. With her team, Dr. Moloney works diligently to encourage careers, increase enrolment, improve retention, increase the profile, eliminate roadblocks and promote the integration of girls and women in science and engineering. The CWSEA also collaborates with individuals and organizations with similar goals and works with the other CWSE Chairs to promote change at the national level.



For more information on the NSERC CWSE program, visit [http://www.nserc.ca/programs/wise\\_e.htm](http://www.nserc.ca/programs/wise_e.htm).

---

## Reps and Regional Offices — First Biennial Meeting

The first biennial meeting between the **NSERC Representatives**, who are based at universities where NSERC supports research, and the **NSERC Regional Offices** was held in Ottawa on January 11-12, 2007.

The gathering offered a mix of presentations about new NSERC initiatives from senior executives and local updates from each regional office. Reps also had a chance to “toot their own horn” and were given the opportunity to talk

about activities they organized in the past. They also discussed future possibilities and their experience as an NSERC Rep. Comments from participants confirmed that the meeting was highly successful and well-appreciated by both groups.

The current Atlantic Reps' meeting schedule calls for them to attend one meeting in the region with NSERC-Atlantic staff and, the subsequent year, to attend a meeting with all NSERC Reps and all re-

gional offices staff in Ottawa. Both meetings are usually held in early January.

At NSERC-Atlantic, Reps play an important role in organizing and helping the office stay on top of local science and engineering activities, whether it be at a university or in the community. NSERC Reps and NSERC-Atlantic often work as a team to support events with their presence, a kiosk, promo items or prizes.

## NSERC Reps, Atlantic Region

Bruce Balcom  
University of New Brunswick  
bjb@unb.ca

Darcy Benoit  
Acadia University  
darcy.benoit@acadiau.ca

Russell Boyd  
Dalhousie University  
russell.boyd@dal.ca

Suzie Currie  
Mount Allison University  
scurrie@mta.ca

Donna Giberson  
University of Prince Edward Island  
giberson@upei.ca

Raj Lada  
Nova Scotia Agricultural College  
rlada@nsac.ns.ca

David McCorquodale  
Cape Breton University  
david\_mccorquodale@cbu.ca

Michael Melchin  
St. Francis Xavier University  
mmelchin@stfx.ca

Gilles Miron  
Université de Moncton  
mirong@umoncton.ca

Georgia Pe-Piper  
Saint Mary's University  
gpiper@smu.ca

Paul Snelgrove  
Memorial University of Newfoundland  
psnelgro@mun.ca

Aibing Xia  
Mount Saint Vincent University  
aibing.xia@msvu.ca

## Personnel Update

In September 2006, **Patrice Audy** became the second Manager at NSERC-Atlantic. Patrice came to NSERC from the research laboratories of Agriculture and Agri-Food Canada (AAFC) in Fredericton, N.B. As Manager of NSERC-Atlantic, Patrice was actively involved in implementing a collaboration between NSERC, the National Research Council and the Business Development Bank of Canada, to accelerate the commercialization of publicly funded research. Patrice met regularly with stakeholders throughout Atlantic Canada, further enhancing NSERC's presence and profile. This September, Patrice is returning to AAFC and to his specialty as a plant geneticist.

## Helping Hands for an Active Office

NSERC-Atlantic welcomed **Laura Jones** as a Communications Assistant, from September to December 2006.

A Public Relations co-op student from Mount Saint Vincent University, Laura worked on planning regional events and attended functions where NSERC-Atlantic had a kiosk. She also wrote articles about our activities for NSERC's newsletter and profiles of NSAC researchers, thus increasing the visibility of the activities and research in our region.

**Kate Merlin** was hired as a Science Writer from January to May 2007. Kate's years of experience writing for many magazines was put to good use when promoting the NSERC-funded research being done in Atlantic Canada.

Kate worked on a series of articles profiling students and researchers from several Atlantic universities. She also wrote articles highlighting NSERC-Atlantic participation in activities in our region.

This past summer, **Constant Nwentsa Tatsambon** joined NSERC-Atlantic for two months. An asset for our office, he assisted in building an electronic database and provided valuable data entry services to track client interactions at NSERC-Atlantic.

Constant is currently enrolled in the Master's program in Statistics at the Université de Moncton and is slated to complete his studies this fall.



**NSERC  
CRSNG**

**ATLANTIC  
ATLANTIQUE**

NSERC-Atlantic  
Regional Office

**55 Crowley Farm Road  
Suite 1300  
Moncton, New Brunswick  
E1A 7R1**

**Phone: (506) 854-8154  
Fax: (506) 854-7981  
E-mail: [nserc-atlantic@nserc.ca](mailto:nserc-atlantic@nserc.ca)**

**NSERC-Atlantic online:**  
[http://www.nserc.gc.ca/about/atlantic\\_e.asp](http://www.nserc.gc.ca/about/atlantic_e.asp)

*NSERC's Vision: The Natural Sciences and Engineering Research Council of Canada will help make Canada a country of discoverers and innovators for the benefit of all Canadians.*

