

Bringing Research to LIFE

In Brief

New era, new ATV

University of Manitoba engineers unveiled an all-electric, all-terrain vehicle (ATV) on October 23.

Its operation is more environmentally friendly than its internal combustion engine counterpart, and, despite what some preconceived ideas note, it does not lack in performance or fun.

The electric motor is actually more efficient at converting stored energy to mechanical energy. So, torque, for instance, is immediately available from the electric motor and can be maintained for the entire speed range eliminating the need for multiple gear ranges or variable speed clutches.

Upcoming

Public Lecture by Dr. Harvey Max Chochinov

2008 recipient of the Dr. O. Harold Warwick Prize awarded by the National Cancer Institute of Canada/Canadian Cancer Society to a scientist whose research has had a major impact on cancer control in Canada.

Monday, November 3, 2008

7:30 p.m. Presentation & Lecture

Dr. Arnold Greenberg
Lecture Theatre

CancerCare Manitoba
2nd Floor, 675 McDermot Avenue

All are welcome to attend

RESOLVE Manitoba Research Days

November 6 and 7, 2008

University Centre

For registration information go to:
umanitoba.ca/resolve

Rh Awards 2008 Call for Nominations

Deadline: November 21, 2008

Categories include:

Applied sciences
Creative works
Health sciences
Humanities
Interdisciplinary
Natural sciences
Social sciences

For more information go to:
umanitoba.ca/admin/vp_research
and click on announcements

Showcasing student research

BY SEAN MOORE

The third annual Student Poster Competition was an oasis for science buffs wanting to know more about, say, alkyl thiol-capped nanoparticles, or mathematical modeling of climate change's effects on whale sharks.

Over the summer months 56 undergraduate students conducted research in one of three scientific fields – applied, biological and physical – to discover facts about nature and perhaps even their passion for research, to learn about the research process, and to get a chance to win some money.

On October 10, the research posters resulting from this scientific toil were reviewed by 30 judges drawn from the university community, industry and the Natural Sciences and Engineering Research Council of Canada (NSERC) Prairies Regional Office in Winnipeg. Prizes of \$500, \$300, and \$200 were awarded to the top three posters in each category.

"Fundamentally, it exposes undergraduates to what the research experience is, which you can't translate in a classroom or through a textbook," Guy Levesque, judge and NSERC-Prairie manger, said.

"This is about feeding the pipeline of the next world-class researchers. These students were already sold on science, and this competition hooks them in – it hopefully confirms to them that this is what they want to do."



Photo by Sean Moore

A student reads a poster on display at the third annual NSERC Student Poster Competition.

This year's first prize winner in the applied sciences category was human ecology student Danielle Durston. Her project was titled The Effects of Dietary n-3 on Triglyceride and Phospholipid Fatty Acid Composition of Hepatic and Adipose Tissue in fa/fa Zucker Rats.

Medicine student Miten Dhruve took top honours in the biological sciences category for his project, DLX Transcriptional Regulation of Insulin Expression during Pancreatic Development.

In the physical sciences category, science student Erica Franzmann won first prize for her project: Explosions in Space! An Analysis of an Intriguing Supernova Remnant Using X-ray Data from European Satellite XMM - Newton.

The competition, sponsored by the Office of the Vice-President (Research) and NSERC, provides opportunities for undergraduates to get exposure to, and gain an appreciation of, research.

"We host the competition to encourage, as many students as possible, to pursue their curiosities and then offer them a venue where they can display their work and gain a sense of pride for it," said event organizer Digvir Jayas, associate vice-president (research).

"It's obvious to students that they come to university to learn in a classroom, but the laboratory is a wonderful teacher and many students may not appreciate how much they can learn – about a topic and themselves – by doing research until they actually do it."

How to get to Stockholm

BY SEAN MOORE

Is it a long and winding road, or just a straightforward one?

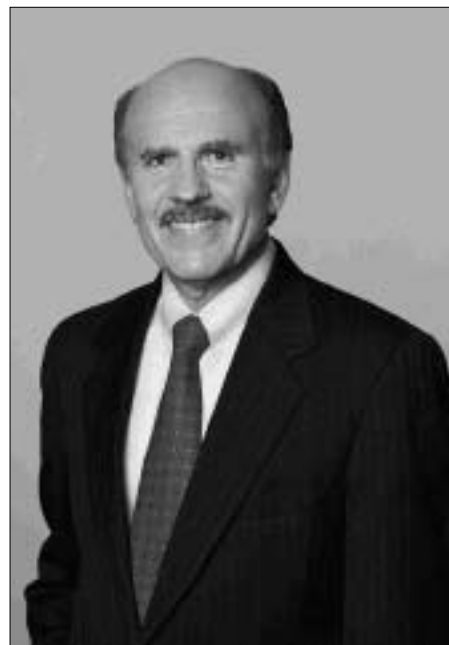
Nobel laureate Louis Ignarro will answer this question when he comes to the University of Manitoba on November 7, 2008 to deliver a lecture titled The Road to Stockholm – a Nobel Mission.

He will speak at 11 a.m. in the IH Asper School of Business building (343 Drake Centre). The lecture is taking place as part of the St. Boniface General Hospital Research Centre's 20th anniversary.

Ignarro won the 1998 Nobel Prize in Medicine for his research into Nitric Oxide. Long thought to be nothing more than a formidable toxin, Ignarro found that its role is quite the opposite – it is a key signal molecule and of vital importance to cardiovascular health.

Indeed, it is perhaps the most widespread signaling molecule that allows a bevy of different cells to communicate with each other. So a shortage of it, caused by a poor diet or lack of exercise, leads to the onset of cardiovascular diseases like heart attacks, strokes and high cholesterol.

It is produced in blood vessels and



Submitted Photo

Nobel laureate Louis Ignarro

controls the flow of blood by signaling for vessels to expand and contract. An understanding of this crucial relationship led to the development of Viagra, a drug that treats erectile dysfunction, something that affects nine per cent of the world's male population.

(Yes, Ignarro does get fan mail.)

This application of his work has led to the University of California, Los Angeles professor often being billed as the "Father of Viagra." Fitting, since the 67-year-old has told media his research helps to "keep me young."

But the former race-car driver and speed-skater reckons his work will ultimately help prevent vascular complications of diabetes.

Needless to say he is committed to his research as the Nobel Prize attests. But he is a committed lecturer too. As the UCLA press reports, during the school year he arrives to work at 4 a.m., works on his lecture till 8 a.m., delivers it, and then begins preparing for his next lecture.

He is the winner of 11 consecutive Golden Apples, the award UCLA medical students give to their year's best teacher.

"Most people either focus on research or focus on teaching," he told a UCLA magazine writer. "I work very hard to focus on both."

No doubt then his lecture will be, shall we say, uplifting.

Seating is limited, however, so RSVP by calling 235-3206, or e-mail kshearing@sbrc.ca

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