Research News

umanitoba.ca/research

In Brief

Couple Recognized for outstanding careers

On September 15, more than 170 people gathered at the Royal Crown Banquet Centre in downtown Winnipeg to celebrate the career accomplishments of a unique couple from the department of mathematics.

Narain and Kanta Gupta are both Distinguished Professors and Fellows of the Royal Society of Canada. They are internationally recognized mathematicians who have been extensively published in some of the world's leading mathematical journals.

Friends, colleagues and former students paid tribute to the many contributions made by Narian and Kanta Gupta to mathematical research and education, and they announced plans to establish an endowed scholarship.

For more information on the endowed scholarship, please contact Digvir Jayas, associate vice-president (research) at 474-6860.

Pickerel and Patents

The university's Technology Transfer Office (TTO) hosted an event at the Bannatyne Campus on September 28 that combined information about research patents with a gourmet lunch of Manitoba pickerel.

The "Pickerel and Patents" event allowed more than 100 scientists, students and entrepreneurs to learn about the importance of patenting new technologies.

"This event, like our Inventors Honours Event and the mid-summer ice cream social, IP & IC, is designed to increase the awareness of intellectual property issues and to provide a networking opportunity for our inventive faculty and students," said TTO executive director Gary Breit. "We intend to continue to produce these fun and informative events for our clients."

To learn more about the wide range of services offered by the TTO, please call 474-6200, or visit the TTO website: www.umanitoba.ca/research/tto

Upcoming

This Lunch Hour has 33 Minutes
Speaker Series
12 p.m., Friday, October 20
University Club
Admission $4 RSVP 474-9020

Distinguished Professor Frank Hawthorne, Canada Research Chair in crystallography and mineralogy will outline his collaborative, theoretical approach to forecasting the stability of secondary uranium minerals and the behaviour of uranium in groundwater. The ultimate goal of this research is to develop methods for minimizing the dispersal of uranium into the environment in the event of failure of nuclear waste storage facilities.
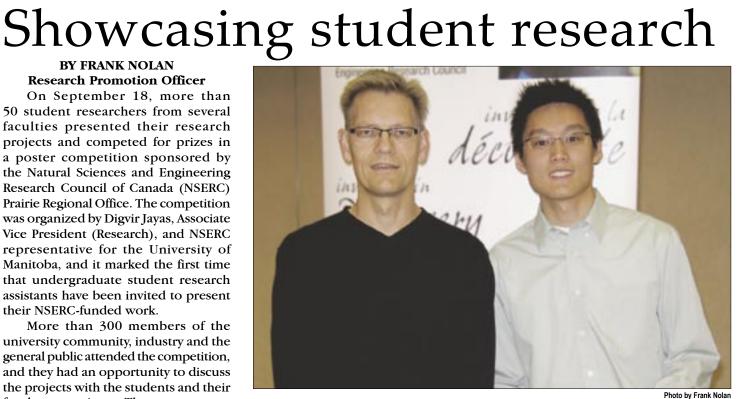
Showcasing student research

BY FRANK NOLAN
Research Promotion Officer

On September 18, more than 50 student researchers from several faculties presented their research projects and competed for prizes in a poster competition sponsored by the Natural Sciences and Engineering Research Council of Canada (NSERC) Prairie Regional Office. The competition was organized by Digvir Jayas, Associate Vice President (Research), and NSERC representative for the University of Manitoba, and it marked the first time that undergraduate student research assistants have been invited to present their NSERC-funded work.

More than 300 members of the university community, industry and the general public attended the competition, and they had an opportunity to discuss the projects with the students and their faculty supervisors. The posters were reviewed by 15 judges drawn from the University of Manitoba, industry and the NSERC Prairies Regional Office, and prizes of $500, $300, and $200 were awarded to the top three posters in three categories: applied sciences, biological sciences and physical sciences.

Following a presentation on NSERC Partnership Programs by Alfonz Koncan, NSERC-Prairies research development and promotion officer, the awards were presented by Joanne Keselman, vice president (research) at the University of Manitoba, and vice-president of NSERC.

Human Ecology student Krystal Merrells won first prize in the applied sciences category for her research on dietary fat, which was supervised by Miyoung Suh, human nutritional sciences. Second prize was awarded to Engineering student Evan Thompson

Science student David Tang (right), pictured with his faculty supervisor Gunnar Valdimarsson, zoology, won first prize in the biological sciences category.

for his project on microwave generation, which was supervised by Behzad Kordi and Greg Bridges, electrical and computer engineering. Third prize went to engineering student Kelly Griffiths for her research on thermal imaging of wheat, which was supervised by Digvir Jayas, biosystems engineering.

First prize in the biological sciences category was awarded to Science student David Tang for his research on the embryonic development of zebrafish, which was supervised by Gunnar Valdimarsson, zoology. Science student Carly Steinfeld won second prize for her project on plant and yeast additives in protein production, supervised by Michael Butler, microbiology. Two third prizes were awarded: Science student Hsueh Yee Seow won for her research on

wheat and Fusarium toxins, supervised by Guo Xiaowei and Dilantha Fernando, plant science; and Science student Akin Famuyide won for his project on the expression of an haemorrhagic fever virus in E. coli, which was supervised by Brian Mark, microbiology.

In the physical sciences category, first prize went to Science student Christine McKinley for her study of borosilicate glasses, which was supervised by Scott Kroeker, chemistry. Science student Vanessa Marx won second prize for her research on gold nanoparticles, which was supervised by Torsten Hegmann, chemistry. Third prize went to Science student Lee Ferchoff for his project on an automated genetic algorithm powered modeling code, which was supervised by Jason Fiege, physics.

Get to know severe storms

BY FRANK NOLAN
Research Promotion Officer

Severe prairie thunderstorms will be the focus of the first presentation in this year's *Get to Know Research at your University* speaker series. On October 12, extreme weather researcher John Hanesiak, environment and geography, will explain how thunderstorms develop, including the various physical forces that contribute to tornado formation.

"Worldwide, Canada is second only to the United States in terms of tornado frequency, and the majority of them occur on the prairies," said Hanesiak, a member of the Centre for Earth Observation Science (CEOS) at the University of Manitoba. "There are a number of very specific conditions that must be present for tornadoes to occur, and it just happens that these conditions come together more often on the prairies than anywhere else in Canada."

Hanesiak has significant field experience in storm research, and for the past two summers he has offered a

Weather researcher John Hanesiak, environment and geography.

unique summer course in collaboration with expert storm chasers and severe weather forecasters, including Environment Canada meteorologists Pat McCarthy and Dave Carlsen, who volunteer their time over the summer, and former Environment Canada scientist Jay Anderson, who now works with Hanesiak at CEOS. The only

course of its kind offered in Canada, it gives students practical experience in the latest storm tracking tools and techniques, and includes a five-day field trip that allows students to apply what they learn in the classroom as they chase storms across the Canadian prairies and the mid-western United States.

"This summer we drove 5,000 kilometres in five days," he said. "We take computers into the field with us so that the students can analyze the data to figure out exactly where we need to go to find the storms. The students love it, and many of them have told us it's the best course they've ever taken."

Hanesiak's public lecture on October 12 will explain how scientists track severe thunderstorms, how future climate change may impact storm frequency, and how and when storm warnings are disseminated to the public. The presentation begins at 7:00 pm in the Smartpark Boardroom at 135 Innovation Drive. Admission is free, and everyone is invited to attend. For more information call 474-9020.