Saluting Canadian Innovation

INNOVATIS

Passing the Torch

"Canadian innovators and all of us involved with the Foundation owe Dave a big thank you for his vision and tireless efforts in making the Foundation a tremendous success over the last 26 years."

- John Read, President

Dave Mitchell, Founder

John Read, President

After leading the Manning Innovation Awards for over a quarter century and presenting $3.6 million of Awards, Dave Mitchell, President and Founder, retired from his volunteer leadership of the Foundation.

Mr. Mitchell said it was difficult to retire after so many years but he does so with confidence, knowing that the organization will be in good hands. Effective July 1, 2007 John Read took on the role as President.

"John Read is a highly capable and warm person, has great interest in innovation and passion for the Manning Awards," said Mitchell.

The election of Read has been enthusiastically endorsed by all Trustees. John has been a Trustee for nearly 12 years and Treasurer and Vice President since 1996.

"The Manning Awards has an excellent legacy of accomplishments and a reputation for high integrity, which will serve as a launching pad for further growth of a fine organization," said Mr. Mitchell.

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Truro, Nova Scotia hosts 2007 Canada-Wide Science Fair

The 2007 Canada-Wide Science Fair was held in Truro, Nova Scotia from May 12 – 20. The annual fair is the showcase event of the Youth Science Foundation and this year honoured 459 finalists in grades 7 through 12.

Each year a judging team selects eight winning projects for the $500 Manning Innovation Achievement Awards. Out of these projects, four are selected for the $4,000 Manning Young Canadian Innovation Awards.

Injections Made Easier

Caroline Hébert, a grade 11 student from Gatineau, Quebec, designed, built and tested a system that makes it easier for nurses to find a vein in a patient's arm when giving injections. The project is titled "J'ai d' la veine, c'est piquant!"

Hébert modified an ordinary web cam so that it could detect infrared radiation. The captured image would then display on a computer screen showing the contrast between the flesh and the veins.

As well as being inexpensive and easy to use, it also reduces the patient's discomfort when receiving injections or having blood drawn.

Hébert also received an Honourable Mention in Engineering from the Youth Science Foundation.

Caroline Hébert
$4,500 Young Canadian Winner
Award Sponsor: A.J.E. Child Foundation

Learning Pronunciation

Part of learning a new language is learning the pronunciation. Pronunciation is simply the physical system of sound source and vocal tract resonances.

Daniel Bild-Enkin
$4,500 Young Canadian Winner
Award Sponsor: Dave Mitchell Family

Daniel Bild-Enkin, a grade 12 student from Victoria, BC, wrote a computer program called "Formant Finder" in order to analyze recorded vowel sounds to assess students' pronunciation. The project is called "Voila les Voyelles: French Pronunciation in a Victoria High School." His technology converts spoken sounds into a spectrograph. This graphical representation of speech could potentially be used to help foreign language learners, the deaf and others achieve authentic pronunciation.

Bild-Enkin also won a CWSF bronze medal in the Physical and Mathematical Sciences Division and the Canadian Association of Physicists (CAP) Physics Prize.

PETRO-CANADA

Proud Sponsor of the Manning Young Canadian Innovation Awards

"Learn not only what you like, learn to like what you find"

"Develop a passion for learning. If you do, you will never cease to grow."

- Anthony J. D'Angelo

Sanitary Sunshine

Haley Robinson, a grade 11 student from La Ronge, Saskatchewan, designed, built and tested three pasteurizers that heat and purify water with solar energy. Her project titled "Sanitary Sunshine: Phase II," tested how solar water pasteurization decontaminates water in developing countries to stop the spread of disease.

Haley Robinson
$4,500 Young Canadian Winner

Construction plans were developed and three pasteurizers were built using simple no-cost materials such as plastic bags. They were then put to the test using contaminated water. After each experiment water tests were conducted and results proved that the hybrid design is the most efficient.

Among other awards, her project was recognized with the Canadian Commission for UNESCO – Science for Peace and a CSSE Engineering Innovation Award.

Image Recognition

Casey Banner of Smithers, BC, also received a silver medal in the Computing and Information Technology Division for his project titled, "Neural Networks: Image Recognition."

Casey Banner
$4,500 Young Canadian Winner

Casey developed software that uses artificial neural networks to reliably identify simple images. Typically, artificial neural networks are used to categorize and find patterns in data but not to recognize images.

Casey's program was designed to test neural networks in this application, with potential use in analyzing security videos for example. The current implementation of the neural network was found to be 80 percent accurate in recognizing simple

Meet Our Manning $500 Innovation Achievement Award Winners

Steven Johnson, a Grade 12 student from Manning, Alberta, invented a neck brace for rough stock events in rodeo and for other extreme sports.

The project is called "Eight Seconds Safer II." The brace, made from high density foam, sheet aluminum, Velcro and elastic, protects the neck area from injuries, including jabs from blunt or sharp objects. Johnson said he "got on a few bulls and tried it out."

Steven Johnson

Delphine Rémillard-Labrosse

Delphine Rémillard-Labrosse is an 18 year old CEGEP student and budding medical researcher from St-Jean-sur-Richelieu, Quebec. Her science fair project titled "Bras de Fer: Axolotl vs. Cancer (Arm Wrestling: Axolotl vs. Cancer)" delved into the biomolecular processes behind limb regeneration in the axolotl salamander.

The salamander is highly resistant to cancer, making it of great interest to cancer researchers. Rémillard-Labrosse specifically examined how limb regeneration was affected when a known tumour-suppressor protein, p53, was inhibited.

Mark Shearer

Mark Shearer's project, "Heads or Tails? II: Memory at its Finest" examined the possibility of chemical memory being transferred from one Planarian (earth worm) to another.

Shearer, from Lion's Head, Ontario, trained Planaria flatworms to expect a shock following a flash of light. He then ground up their tails (Planaria can regenerate their tails) and fed the material to untrained specimens. The untrained Planaria reacted to the light flashes as if they were trained and remembered the shock.

Bing Luo

Bing Luo, a grade 12 student from Vancouver, BC, was recognized for his project, "The Missing Link: An Investigation into JAK 2 Phosphorylation." His research related to atherosclerosis, the build-up of plaque in the arteries.

Luo investigated the biochemical chain of events that prevent fat-laden foam cells from dying off leading to their build-up in the blood vessels and looked for a chemical pathway to inhibit foam cell survival.

Manning Innovation Awards

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Established in 1980, the Ernest C. Manning Awards Foundation was named in honour of, and under the patronage of, a statesman whose own innovative ideas provided much inspiration during half a century of public service.

We're on the web:
www.manningawards.ca