Prince Edward Island

Much of the beauty of the island is due to the vivid colour contrasts – the rich red of the winding roads, the brilliant emerald of the uplands and meadows, and the glowing sapphire of the encircling sea.

Lucy Maude Montgomery, Author (1874-1942)
Excerpt from The Alpine Path: Every Woman's World

Lucy Maude Montgomery's book, The Story of Anne of Green Gables, *draws more than 10,000 Japanese travellers to PEI yearly who visit places associated with the book.*

"Never be afraid to try. Blaze your own trail." ***Catherine Chan***

21st Century Science

Catherine Chan

What may have seemed like science fiction just a few years ago is now a reality as genetic engineering modifies existing life forms.

Dr. Catherine Chan, a Professor at the Atlantic Veterinary College of the University of Prince Edward Island, is part of a research team that is using a genetically engineered mouse to closely examine how insulin is made in the body. The mouse was developed by a colleague at Harvard University. The team hopes the mouse will help them find a way to prevent diabetes (which results from lack of insulin), or provide better treatments for the disease.

The mouse has been engineered so that one of its genes is "knocked out." In this case, the "knocked out" gene can no longer translate into a protein. Tests are run on the altered mouse. If the mouse shows high levels of insulin secretion in its body, then the absent protein is important in regulating the insulin levels in normal mice. The tests may help identify which proteins play a role in Type 2 Diabetes Mellitus.

Presently, it is not possible in Canada to obtain a patent for genetically engineered complex life forms. Only lower life forms, such as single-celled organisms, qualify for a patent. Examples include bacteria or yeast cells that have been bioengineered to eliminate pollutants or to do other specific industrial jobs. Because of this restriction, Catherine and her team have applied to the United States government for a patent for the use of the "knock-out" mouse in the study of insulin secretions. The patent application has yet to be approved.

Science Fair Winner

Micheline Briand

A science fair project became a new system to help the environment! Fourteen-year-old Micheline Briand from Charlottetown wanted to find a way to recycle and reuse the 5,000 truckloads of sand, granite and salt dumped on island roads every winter.

The recycling system she invented uses an industrial vacuum cleaner and a series of screens to collect and sort the road debris. To test her theory, Micheline enlisted the assistance of a number of people and organizations, including the National Research Council of Canada, a local environmental consulting company, and the Superintendent of Highway Safety for the Department of Public Works. With their help, Micheline discovered that her experiment not only worked, but the recycled material could also be used to make concrete. In fact, the concrete turned out to be very strong, withstanding more pressure than a commercially produced brand!

"Science is trial and error. I encountered many challenges and roadblocks while I developed and tested my device. There were many technical difficulties but I was lucky to be able to sort them out. I was able to contact and get help from several mentors along the way. Support came from family and friends, but my greatest support came from my parents."
Micheline Briand

Helping Horses Heal

Laurie MacDuffee

It is always heartbreaking when a beloved horse has to be put down because of a broken leg. Leg bone fractures in horses are very difficult to heal on their own and cause terrible suffering for the animals.

Dr. Laurie MacDuffee of the Atlantic Veterinary College of the University of Prince Edward Island hopes her new invention might be a solution. Laurie has developed THE EQUINE INTERLOCKING NAIL, a special medical implant for horses with broken leg bones. Although the device is still in the experimental stage, it may one day help leg bones to mend, thereby saving the lives of injured horses.

From Artist to Healer

Alma Buote MacCormick (1894-1966)

Artistic innovation is not restricted to canvas and paint. Artist Alma Buote MacCormick of Tignish went from working as a successful commercial artist in Prince Edward Island to becoming an innovative designer of artificial limbs for the New York City manufacturer Astrel Laboratories. Although she lived far from home, she never lost her deep love for her Canadian roots. After retiring in 1958, she returned to Prince Edward Island where she founded the Tignish Arts Foundation.