

SENSITIZING STUDENTS TO SCIENCE

Staff at one of the busiest research facilities in the country take time each week to encourage teenagers to consider careers in science

Dr. Michel G. Bergeron does not have a lot of spare time on his hands.

As Director of the Infectious Diseases Research Centre (CRI) of Laval University, he oversees the work of 250 research personnel. Not just an administrator, he has published more than 400 articles and some 50 book chapters on infection and immunity. He recently created a company, called GenePOC, to develop an easy-to-use, high-speed diagnostic tool the size of a CD that he refers to as "lab on a chip." He's also the inventor of a microbicidal gel called the Invisible Condom® designed to prevent women from contracting HIV/AIDS and other sexually transmitted diseases.

Despite his overstuffed appointment calendar, for more than a decade Dr. Bergeron has made time for something that doesn't register as a publication credit or a patent application: getting young people excited about science.

"I wanted to make sure that CRI made a small contribution to the future of science by getting young people interested," says Dr. Bergeron. "The objective is sensitizing students to science."

The CRI, which Dr. Bergeron founded in 1974, is the 2009 winner of CIHR's Synapse Award for exceptional contributions by a group to promote health research among secondary school students.

Dr. Bergeron and CRI's researchers conduct a Researcher for a Day program that, since 1998, has given more than 1,800 high school students a peek into lab life. Different groups of eight to 10 students and their science teachers arrive at the CRI every Wednesday morning for presentations on the immune system, how bacteria can attack it and the role of antibiotics. Then they head to the labs where - with strict safety regulations in place - they work alongside researchers doing leading edge investigations into microbial resistance to antibiotics.

"We want to encourage these students to take up careers in science," says Dr. Bergeron. "We don't have data on how many students who have gone through the program go on to science careers, but many of the young researchers in our labs have been through it."

Mme. Manon Thériège, Director of Boîte à science, a non-profit organization that promotes interest in science and technology among young people, praises Dr. Bergeron as the driving force behind Researcher for a Day. Dr. Michel G. Bergeron does not have a lot of spare time on his hands.

From student to scientist

Who: Hélène Gingras was a 19-year-old CGEP (junior college) student 10 years ago when she attended a Researcher for a Day session at the Infectious Diseases Research Centre (CRI).

Impression: "It was my first contact with a university research centre. I was impressed. It's quite a large centre and very open, with different labs working close together."

Impact: Mme. Gingras went on to get a B.Sc. in biology and a M.Sc. in biochemistry.

Where is she now?

She is a research assistant at CRI, working with Dr. Marc Ouellette, a Canada Research Chair in Antimicrobial Resistance.

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"His practice of inviting teenagers to visit his laboratory not only encourages them to experience what it's like to make a living as professional researcher, it also encourages young people to leave the beaten path to pursue activities of innovation and vision," says Mme. Th  berge. Dr. Bergeron is quick to credit his fellow researchers and staff with operating the program week in and week out. He will, however, take credit for coming up with the idea and leading the presentations to students for the first few years. He now works with the teenagers at time permits and appreciates the energy they bring into the building.

"The kids are amazing. They are at that age where they soak everything up like sponges. They get excited about things." The overarching goal, he says, is to pave the way to the future to ensure there are young people ready to carry on the CRI's work.

"We want to ensure that 10 or 20 years from now there will be researchers to replace us."

Stand-alone Quote

"It's fantastic, the responses we get. The kids write evaluations and tell us 'I loved my day.' Others write that they hope we continue to offer this 'unforgettable experience.'"

The Program

The Infectious Diseases Research Centre of Laval University operates its Researcher for a Day Program weekly throughout the high school year. Sixty high schools participate in the program with about 200 students attending the sessions each year.

About 10 of the CRI's 22 professors take part in the program, along with about 20 high-level research staff and graduate students.

The presentations and lab work focus on subjects of interest to young teenagers.

"Young people aged 12 to 16 are open to positive influences," says Dr. Michel G. Bergeron, Director of the CRI. "We talk about infectious disease because it's a good model for young people. We talk about sexually transmitted diseases, HIV/AIDS, pneumonia - we talk about a lot of things for about an hour. Then they go into the labs and we show them how we do experiments."