 PROFILE: 2006 CEECD LEADING INVESTIGATORS

YOUNG CANADIAN RESEARCHERS

MAKING A DIFFERENCE

Each year, young Canadian researchers distinguish themselves by publishing top quality research on ECD in prestigious scientific journals. While their research topics are varied, all are innovative thinkers who were published at a young age. Here are three examples.

REMAINING TRUE

Éric Lacourse is particularly interested in deviancy, the prevention of social marginalization, and cultural differences in the socialization and lifestyles of young people. After obtaining his PhD in educational psychology from the Université de Montréal, Lacourse did a post-doctoral study at the University’s Research Unit on Children’s Psychosocial Maladjustment. He then pursued his work on developmental trajectories of antisocial behaviors and the affiliation with deviant peers at the Heinz School of Public Policy and Management in the United States (Carnegie Mellon University, Pittsburgh).

Lacourse returned to Montreal, his home city, to work as a researcher at the Université de Montréal in 2002, and accepted a position as associate professor in the sociology department a year later. His most recent findings, “Prediction of Early-Onset Deviant Peer Group Affiliation: a 12-Year Longitudinal Study”1 (see page 11), show that certain traits and family risk factors leading to delinquency can be identified as early as kindergarten, suggesting new avenues for prevention.

One of the challenges of pursuing a researcher’s career, he says, is remaining true to yourself rather than being pulled in by dominant ideological trends. He uses music—another of his passions—as an analogy: “There’s mainstream music and underground music; in my research, I’d like to bring the more ‘underground’ or marginal research themes to the surface for people to see.” Lacourse recently received a career grant from the Fonds de la recherche en santé du Québec to investigate prevention of externalized behaviors through leisure and sport activities.

MAKING SACRIFICES

Suzanne Richter is originally from Hamilton, Ontario. It was while working on her MSc in the Department of Laboratory Medicine and Pathobiology at the University of Toronto that she became interested in genetics and oncology, and began working in the lab of Dr. Brenda Gallie at the Princess Margaret Hospital. Their research centred on retinoblastoma, a childhood eye cancer. In the past, Richter explains, children from families with a history of the disease had to undergo invasive and risky surveillance screening. Working with Gallie’s team, Richter helped develop a genetic screen, a test that can identify children at risk early and avoid unnecessary examinations. “It was a true opportunity to make a difference to those kids,” she says. Their findings were published in 2003, under the title “Sensitive and Efficient Detection of RB1 Gene Mutations Enhances Care for Families with Retinoblastoma.”2

Now Richter is excited about taking her research a step further by getting involved in the clinical end. After completing her Master’s, she returned to school to get her Doctor of Medicine (M.D.) from the University of Western Ontario. She is currently a resident in internal medicine at the London Health Social Sciences Centre in Ontario. “I’ve had to make sacrifices to follow my passion,” she says, “but it is certainly worth it!” She looks forward to specializing in oncology so that she can pursue both her research and clinical work in the field.

GOING AGAINST THE GRAIN

Ila Weaver, originally from Winchester, U.K., came to Canada to do his PhD in Neuroscience at McGill University, working in the lab of Dr. Michael Meaney. They were studying behavioural epigenomics, looking at the effects of rats’ maternal behavior toward their offspring. In his research study “Epigenetic programming by maternal behavior,”3 Weaver showed that rats that received a great deal of maternal licking and grooming early in life actually had different levels of DNA methylation, which affects how genes are expressed. For humans, this means that mother-child early intervention programs can have lasting effects on children’s development.

Weaver says that because these findings go against the prevailing belief that DNA methylation patterns are static and unchanging, it was difficult to get published. “It’s long been said that your genome is what makes you,” he says. “But we’re showing that the environment also sculpts who you are, by switching those genes on or off.” Weaver is now a post-doctoral fellow in the cell biology program at Toronto’s Hospital for Sick Children.

All three researchers say they owe a tremendous amount to their supervisors for helping them get to where they are today. They continue to work hard and, as time goes on, they will no doubt foster a new generation of talented investigators.

BY EVE KRAKOW