Meet James MacKillop, Ph.D.

James MacKillop, Ph.D., is the Peter Boris Chair in Addictions Research, the director of the Peter Boris Centre for Addictions Research, and professor of psychiatry & behavioural neurosciences at McMaster University. Dr. MacKillop won the 2014 Research Society on Alcoholism (RSA) Young Investigator Award, presented at the RSA annual meeting in Bellevue, Washington during June 2014.

Writer Sherry Wasilow interviewed Dr. MacKillop from his office at McMaster University in Hamilton, Ontario.

**SW:** How did you begin your work in the field of alcohol studies?

**JM:** Prior to graduate school, I had experience in the areas of developmental disabilities and schizophrenia, but found myself intrigued by alcoholism and other forms of addictive behavior. That shaped the graduate programs I applied to, and I was fortunate to be admitted to Binghamton University – State University of New York – where I worked with Dr. Stephen Lisman in his Alcohol and Behavior Laboratory. Subsequently, I completed further training in addiction research as a predoctoral intern and postdoctoral fellow at the Center for Alcohol and Addiction Studies at Brown University. At Brown, I was fortunate to work with Peter Monti, Bob Miranda, Bob Swift, Damaris Rohsenow, John McGeary, and Jennifer Tidey, all of whom remain collaborators today.

**SW:** How would you describe your current research focus?
JM: My research uses behavioural economics and neuroeconomics to understand alcoholism and other addictive disorders. This approach brings together theories and methods from psychology, economics, and cognitive neuroscience to understand decision making, both in general and in pathological instances, such as alcoholism. I investigate why individuals with alcohol use disorders choose to drink despite the significant and persistent costs to themselves and others. The neuroeconomic aspect of my work refers to going one step deeper and investigating the neural substrates that are responsible for healthy and unhealthy decisions.

SW: How did you arrive at this research focus?

JM: My earliest research comprised human laboratory studies investigating the role of environmental alcohol cues on motivation. Based on a lot of time observing participants behind a two-way mirror, it became more and more clear to me that the final common pathway to drinking, both in the lab and in real life, was choice behavior, the decision to drink or not drink. That steered me toward approaches that permitted systematic examination of decision-making and, in turn, to behavioral economics. I incorporated a neuroeconomic perspective as I became more aware of the cognitive neuroscience tools that were available to unpack and probe decision-making at the level of the brain.

I’ve persisted in applying this focus because I’ve found it to be highly robust, being both grounded in basic behavioral science and highly compatible with the clinical dimensions of alcoholism. In addition, I’m an empiricist at heart and I have found the data from this approach to be very persuasive.

Finally, I have become even more committed to my research based on my experiences working with individuals who are afflicted by alcoholism or other addictive disorders. These are deeply challenging disorders and I have been inspired by the humanity and courage of the patients trying to change their lives.

SW: What day-to-day applications do you think your research has for both clinicians and non-clinicians?

JM: My research program has a strong emphasis on translational research, which applies insights or methods from basic science to ultimately enhance treatment. I am hopeful that some of the novel assessments we have developed may be adopted for clinical practice. For example, we have developed brief assessments of preferences for small immediate rewards compared to larger delayed rewards – referred to as delay discounting or delay of gratification. These preferences
predict how well a person fares in treatment and I’d like to see assessments like this migrate into more widespread clinical use.

**SW: What would you like to see happen in the addiction-research field?**

**JM:** The distance between scientific research and “in-the-trenches” treatment remains far too large. More fully inter-digitating the research and the clinical enterprises has the potential to be transformative and I would like to see those boundaries increasingly dissolved.

**SW: What advice do you have for people now entering addiction research?**

**JM:** You have to find your intellectual niche. Find an area for which you have a deep and abiding passion. You need that intrinsic motivation to keep going when challenges arise. And they will. It is essential that your work be personally meaningful.

**SW: What does your recent award – the 2014 RSA Young Investigator Award – mean to you on a personal level?**

**JM:** I have always held RSA in the highest regard as a professional society. It is a tremendous personal honor to receive this award. In addition, it has given me an opportunity to reflect on how grateful I am to be in this field and to thank those people who have supported my career.

Website(s):
http://fhs.mcmaster.ca/psychiatryneuroscience/MacKillop_James.html