



## April 2010 Scientist of the Month

**Dr. Adam Baxter-Jones, Professor and Associate Dean, College of Kinesiology, University of Saskatchewan; Associate Member, Department of Pediatrics, College of Medicine, University of Saskatchewan**



*Source: U of S Photo*

Adam Baxter-Jones studies childhood growth and development in the Colleges of Kinesiology and Medicine at the University of Saskatchewan. He has studied many aspects of auxology (physical growth) including bone imaging using the synchrotron at the Canadian Light Source, pediatric respiratory disease, and juvenile idiopathic arthritis. He has published over 90 articles related to his research and is an expert in the design and analysis of longitudinal growth studies.

Dr. Baxter-Jones was born in London, UK in

1963. He graduated from the New University of Ulster, Northern Ireland in 1985 with B.Sc.

(Hons) in Biology. In 1984, he won a New University of Ulster Undergraduate Biostatistics prize. On graduating, he trained as a Medical Technical Officer (respiratory physiologist) in the Lung Function Unit at the Royal Brompton Hospital, London, UK (1985 to 1987). Next, he took up a position as an exercise physiologist on a longitudinal study of the growth and development of elite young athletes (The TOYA Study). The study was funded by Sport England and ran from 1987 through to 1992; it was based in the Institute of Child Health, University of London. Whilst there, he was trained as an auxologist in the lab of Dr. JM Tanners, the world's pre-eminent expert in children's growth and development. He relocated to the Department of Child Health, University of Aberdeen, UK in 1992 and was awarded a PhD on the physical effects of systematic training during puberty and adolescence in 1995. As a Senior Research Fellow in Child Health at the University of Aberdeen, he continued to work in the area of childhood growth and development, specifically in the area of pediatric respiratory disease. As part of these studies, he developed an interest in the relationship between corticoid steroid use and bone development.

Dr. Baxter-Jones moved to the University of Saskatchewan in October 2000 and is currently Professor and Associate Dean (Graduate Education and Research) in the College of Kinesiology

and an Associate member of the Department of Pediatrics in the College of Medicine. He is the director of two ongoing longitudinal studies of childhood growth and development: The Saskatchewan Growth and Development Study (SGDS) (initiated in 1963 with follow-up measures 1964-1973, 1996-1998 & 2008-2011) and the Pediatric Bone Mineral Accrual Study (PBMAS) (initiated in 1991 with follow-up measures 1992-1998 & 2002 to 2011); both are currently funded by the Canadian Institute of Health Research (CIHR). These two world-renowned studies of childhood growth and development have produced over 100 peer reviewed articles and numerous PhD and MSc dissertations. In his past 5 years at the University of Saskatchewan, Dr. Baxter-Jones has held over \$7.8 million in grant funding and has trained numerous Masters and PhD students.

He is also involved in the development of newly emerging longitudinal studies in a variety of populations including young gymnasts, children with juvenile idiopathic arthritis and a pregnancy study investigating intrauterine antecedents of inflammation-mediated disease. Dr. Baxter-Jones is also the director of a provincial bone and joint imaging health research group that facilitates researchers from a variety of backgrounds to further the development of diagnostic imaging from desktop micro-Quantative CT to MRI and now synchrotron imaging at the Canadian Light Source.

**What, or who, inspired your decision to become a scientist or to work in your area?**

My initial inspiration was my high school biology teacher. Her enthusiasm for the subject galvanized my own interest which led to me going to university to pursue a Biology degree. After leaving university I worked in the health field as a technician before meeting my PhD supervisor who was an MD in the hospital. He reignited my interest in research science as a career and supported me for over 13 years whilst developing me into the scientist I am today.

**What is the most interesting thing you have ever learned or discovered?**

Every day I learn something new. I am very pleased that I have been able to show in my longitudinal studies that healthy behavioral choices in adolescence (e.g. diet and exercise) have health benefits in adulthood.

**Of what accomplishments are you most proud?**

The achievements I am most proud of are the research tools that help researchers, professionals and parents to identify where their child is in terms of growth and development relative to their peers (<http://taurus.usask.ca/growthutility/>).

**Were there any obstacles in your education or career, and how did you overcome them?**

The major obstacle to my own career was financial support. I had to self support myself and then in the latter years my wife and family. I was very lucky in that during my studies I was employed by my supervisor as a research assistant and then a research fellow.

**What is a typical (work) day like?**

A typical day starts with helping get breakfast for my kids and then driving some of them to school. I will then spend the first part of the day answering e-mails, usually for students or colleagues around the world asking for advice on various research projects. I also make time to meet with my graduate students and discuss any outstanding issues they are having. I will also likely teach an undergraduate class, which will require some preparation. Then because I am also the Associate Dean of the College there will be a number of meetings within the college and/or the university to discuss how best to enhance and improve the student experience along with discussion around improving the research we do. Then I have to get back home to take one of my kids to their out of school engagements – I spend a lot of time at hockey rinks! I always keep one day a week free for my own research and during those days I will be writing research grants, research publications, and reviewing my peers' works.

**What advice do you have for future scientists?**

The most important thing is to have a passion about what you are doing. Set yourself long and short term goals. Most importantly, talk to people and don't be afraid to express your own ideas. You would be surprised at the number of research project and papers that I have been involved in that have resulted from student discussions in my undergraduate classes.