



Me at Five

I was born in Oromocto, New Brunswick with a septal heart defect that fortunately healed by itself by the time I was five. I grew up in the Eastern Townships in Granby, Quebec as part of the English minority. I moved away from Granby when I was fifteen years old and finished my high school in Calgary Alberta at Western Canada High School in the International Baccalaureate Program. Growing up below the poverty line and having been raised by a single mom with two older brothers I quickly learned the importance of a good education. Fortunately, with the support of my family, a little luck, and a lot of hard work I have had a successful career in science. It also goes without saying that I am indebted to all the talented students and postdocs I have had the privilege of working with and mentoring that have contributed to my success. I also have been extremely fortunate to have the opportunity to train and work at top level research institutes throughout the world.



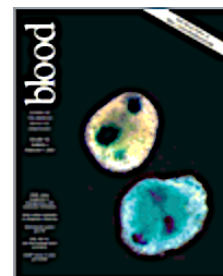
Fps/Fes expression in blood vessels

I completed my undergraduate degree in Life Sciences at **Queen's University** (1992) in Kingston, Ontario and did my M.Sc. degree in Biochemistry in the lab of Professor Peter Greer (1995) at the **Queen's Cancer Research Institute**. During this time, I studied the role of the Fps/Fes cytoplasmic tyrosine kinase in angiogenic processes that ignited my interest in vascular biology and Vascular Endothelial Growth Factor (VEGF) research as well as mouse modelling. Dr. Greer was a former postdoc in the lab of Professor Tony Pawson who was a pioneer in the field of signal transduction. I have very fond memories of hearing about the importance of work performed on Fps/Fes leading to the discovery of the SH2 domain that heralded the discovery of many more modular protein domains essential for transducing signals in the cell. I also have very fond memories of the summer Oncogene Meetings in Frederick Maryland that showed me that Science could be a lot of fun in addition to offering a viable career path outside of medicine.



VEGF and Bone Formation

I then decided to pursue my scientific career overseas in Europe and was selected as the top ranked candidate for the **IMP/Vienna Biocentre** International Ph.D. program (1996) and completed my Ph.D. at the IMP in the lab of Professor Erwin F. Wagner (2000) who is a pioneer in the field of mouse transgenesis and AP-1 biology. During this time, I studied the role of VEGF in endochondral bone formation and in determining the role of activated Fps/Fes in VEGF signaling pathways. As well, at this time I was fortunate to have met my wife Katharina who has not only been my life partner but also my science partner for the last 20 years.



Fps/Fes in VEGF/Flk1 Signaling

It was clear at this point that I wished to further pursue my studies in VEGF biology and to further develop my in vivo skills in using the mouse as a model genetic system. It was therefore an obvious choice to return to Canada and do my postdoctoral work in the lab of Professor Andras Nagy at the **Lunenfeld-Tanenbaum Research Institute** at Mount Sinai Hospital in Toronto. Professor Nagy's lab has done pioneering work in ES cell mediated transgenesis and VEGF biology. During my postdoc until 2004 I continued to work on the role of VEGF in organogenesis as well as developing novel transgenic mouse models that would act as a bridge in regulating transgene expression in an inducible and cell specific manner. This postdoc time was as well the time of dramatic change that was heralded by parenthood and the birth of our first son Jonathan.



*ZEB2 and  
hematopoiesis*

In 2004, I had the opportunity to return to Europe in part to be closer to Katharina's family and joined the **VIB/Ghent University** in Ghent, Belgium as a group leader/Assistant Professor (2004-2013). During this time my lab continued to work on the role of VEGF in neural development, bone formation, hematopoiesis, and cancer progression. My lab also developed novel and efficient ROSA26 (R26) safe harbour locus targeting technologies and the R26 COIN IPS mouse that spawned our long-standing interest in regenerative medicine. These R26 technologies have allowed efficient generation of

numerous transgenic models throughout the world over the last 10-15 years.

It was as well at this time that my group began collaborating with the groups of Professors Danny Huybreck and Geert Berx that we became interested in the potential role of EMT modulators SNAI1 as well as ZEB1/2 proteins in vascular biology. As it would turn out we discovered novel roles for ZEB2 in hematopoietic stem and progenitor (HSPC) migration and differentiation instead. This would set the stage for the discovery that misexpression of ZEB2 and SNAI1 could drive spontaneous T cell and myeloid cell transformation respectively. This time in Belgium also was highlighted by the birth of our second son Alexander.



*Australian Flora*

To further pursue the role of ZEB and SNAI in blood cell development and blood cancer development we moved to the **Australian Center for Blood Diseases (ACBD) at Monash University** in Melbourne, Australia (2013-2018) as an Associate Professor. These 5 years in Australia were very productive and enjoyable. I received significant funding but unfortunately, I could never break into the Australian Fellowship Scheme for my own salary support and my family, and I decided to move back to

Canada to the University of Manitoba and the recently renamed Paul Albrechtsen Research Institute at CancerCare Manitoba (August 2018-present).



*Winnipeg at Dusk*

Over the last 5 years my lab has re-established itself and weathered Covid-19 induced closures. I have become a Tenured Professor, bought our first house and settled down after our extensive travels. Our eldest son Jonathan is now off to second year at Western University. During this time, I have also acted as co-director of the research institute and helped recruit 3 excellent new group leaders as well as purchase some

advanced equipment for performing cutting edge single cell genomics analysis. The future is bright, and I look forward to the coming decade. Do you want to be part of the journey? We are happy to have you join us...