Focus on Faculty #91 Stéphane Richard



I was born and raised in Montreal by francophone parents yet attended public English schools throughout my education. After attending CEGEP at Vanier College in their health science program, I was excited to pursue an honors B.Sc. in Biochemistry at McGill. During this time, I truly enjoyed biophysical chemistry, chemistry, and calculus classes. I completed my Ph.D. studies in the Molecular Endocrinology Group at the Royal Victoria Hospital working on promoter regulation by estrogens which exposed me to the field of nuclear receptors, a research area that was expanding exponentially at the time. During my Ph.D. I realized that lab work was my strength - combining efficiency, trouble shooting and meticulously obtaining data about new information. I did four years of postdoctoral training at Pfizer Inc. in Groton, Connecticut and at Washington University in St. Louis working on the SH3 and SH2 domains of Src family kinases in immune cells. I closely followed the fields of T cell signaling and tyrosine kinase receptor signaling and how they have evolved. During my postdoctoral work, I was fortunate to have Andrey Shaw as a supervisor, who was a mentor and a true role model.

In 1995 I returned to my hometown and, as an Assistant Professor at McGill, joined the Lady Davis Institute at the Jewish General Hospital. During my early years, I would regularly turn to André Veillette, John Hiscott and Samuel Freedman for guidance. In addition, Michel Tremblay and Mark Bedford counseled me through the early years of mouse genetics, for which I am truly grateful.

I am presently a full Distinguished James McGill Professor in the Departments of Medicine and Oncology and a Senior Investigator and Associate Director at the Lady Davis Institute - Jewish General Hospital. I am a molecular biologist and a leader in basic research of RNA binding proteins and arginine methylation. I am internationally known for my work on the development of antibodies and pre-clinical animal models to characterize RNA binding proteins and their

modification by protein arginine methyltransferases. Using biochemical approaches and genetic mouse models, I have linked RNA binding proteins to osteoporosis, obesity, multiple sclerosis, cancer, and most recently COVID-19. My scientific contribution also includes characterizing the roles of arginine methylation in RNA metabolism and the DNA damage response pathway, with implications for new cancer therapeutics, muscle stem cell therapeutics and anti-viral therapies for COVID-19. Over the years, I have been fortunate to mentor numerous talented trainees, many of whom now maintain successful careers in academia, government, medicine, and industry.

Outside the lab, I enjoy the company of my cherished family and friends. I stay physically active by regularly going to the gym. I am also an avid snowboarder, but during hot summer days, I can be found enjoying water sports and the outdoors.