

Focus on Faculty #62

Marc Fabian



[Dr. Marc Fabian](#) is a McGill University Associate Professor in the Gerald Bronfman Department of Oncology as well as an Associate Member of the Department of Biochemistry.

Dr. Fabian carried out graduate training at York University in Toronto with Dr. Andrew White and became excited with RNA biology as he investigated replication and translation mechanisms of an RNA virus. He then moved to Montreal in 2006 to begin his postdoctoral training with Dr. Nahum Sonenberg and during this time worked towards understanding how microRNAs function to post-transcriptionally regulate mammalian gene expression. Not much was known at the time about how microRNAs act to shut down protein synthesis in cells, and work that he was involved with helped determine that microRNAs recruit a number of different factors, repress mRNA translation and also promote the decay of microRNA-targeted transcripts.

In 2012 Dr. Fabian joined the Department of Oncology as an Assistant Professor, opening his lab at the Lady Davis Institute/Jewish General Hospital. His fundamental research group uses cutting-edge biochemistry and molecular biology techniques to investigate how RNA-protein interactions govern gene expression in normal cells and how these programs can become dysregulated in cancer cells. This work is currently funded by grants from CIHR, NSERC and the Canadian Cancer Society. He has received a number of research awards throughout his career, including a CIHR New Investigator award and Chercheur-Boursier Junior I and Junior II awards from the FRQS.

In addition to collaborating with groups within Canada and beyond, Dr. Fabian has closely collaborated with Dr. William Foulkes (McGill) on DICER1 syndrome, a genetic disorder that predisposes individuals to several types of cancer due to defects in microRNA biogenesis. Dr. Fabian's group has set up a number of cell-free assays to help identify and characterize pathogenic patient-derived DICER1 mutations.

Moving into 2020, Dr. Fabian has also taken an active role in the Oncology Department, helping to coordinate ONCO 610 (Fundamentals of Oncology and Cancer Research) the core course in the new Graduate Diploma in Oncology. This course involves a multidisciplinary approach to the entire spectrum of principles and practice in all fields of oncology, as well as to its research domains, from basic science to clinical and population health sciences.

Outside the work environment, Dr. Fabian enjoys eating and cooking for others, watching his young kids grow up, staying physically active and camping with friends and family in the summertime.

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