As PTPs serve as controls for each other functionally and experimentally, my laboratory chose to work simultaneously on several of these enzymes. Our research revolves around the following five PTPs; PTP-PEST (PTPN13), PTP1B (PTP-N1), TC-PTP (PTPN2), the LAR-PTPs subfamily and especially PTP-sigma (RPTPS), and the oncogenic PRL2 (PTP4A2). These enzymes remove the phosphate moiety from tyrosine and were considered tumor suppressor genes counteracting the protein tyrosine kinase family, of which over 70% have been associated with oncogenic activities. Yet, we have clearly shown that many PTPs are as oncogenic as they are tumor suppressors. Using gene knock-out technologies and other molecular approaches our laboratory generated various mouse models and assays for all these enzymes and demonstrated their functions in cancer and also in other human diseases. Data regarding these different models and research projects will be presented in this talk.

M. Tremblay: Short Bio
Michel Tremblay has published more than 200 articles and has an H index of 69 (GS) with over 15,800 citations. He won many awards such as the James McGill Professor, McGill University, 2004-2010, FRSQ Chercheur National, 2005-2010, Jeanne and J-Louis Levesque Chair in Cancer Research, 2005, Prix Michel Sarrazin 2012 du Club de Recherche Clinique du Quebec, 2012, The Robert Noble Award of the Canadian Cancer Society, 2013. He is, furthermore, a fellow of The Royal Society of Canada and Knight (Chevalier) of the Ordre National du Québec. More recently in 2017, he received the prestigious McLaughlin medal from the Royal Society of Canada for the sustained excellence in his medical science research.