

## Focus on Faculty #50

### Sonia del Rincón



In January 2018, [Dr. Sonia Victoria del Rincón](#) joined the Gerald Bronfman Department of Oncology as an Assistant Professor. She is a Principal Investigator in the Cancer Axis at the Lady Davis Institute-Segal Cancer Centre, where her lab is located. Prior to pursuing her doctorate degree in the Division of Experimental Medicine at McGill she completed a MSc degree from Guelph University. Dr. del Rincón recounts that she was hooked on science following her MSc thesis work wherein she was investigating the role of retinoic acid receptors during limb regeneration, using the axolotl (Mexican salamander) as a model.

Dr. del Rincón's recently funded CIHR grants are focused on understanding the tumour cell-intrinsic and –extrinsic roles for a specific protein synthesis pathway termed the MNK1/2-eIF4E axis in two highly metastatic diseases: postpartum breast cancer and melanoma. Her lab uses a number of pre-clinical mouse models to study invasive and metastatic disease. Our immune systems can recognize and eliminate cancer cells. However, sometimes cancer cells develop modes of hiding from immune system recognition. Dr. del Rincón's laboratory predicts that the MNK1/2-eIF4e axis is responsible, at least in part, for blocking the immune system's ability to recognize cancer cells, and employs newly developed inhibitors to block the action of the MNK1/2-eIF4E pathway, with the hypothesis that these can restore anti-tumour immune attack. Encouragingly, MNK1/2 have emerged as potential drug targets that have entered clinical trials with immunotherapy, thus Dr. del Rincón is confident that the discoveries made in her research program, will be quickly translated to the clinic. Her lab is highly collaborative and as such, her team is part of a number of scientific networks: ThéCell, Centre of Excellence in Translational Immunology, and Montreal Cancer Consortium, to name a few.

Dr. del Rincón has a passion for mentoring and celebrating her students' victories, but also picking them up during their lows. Her teaching philosophy in the lab is to lead by example and to foster an environment built on trust, hard work and collaboration.

Dr. del Rincón is a native Montrealer, being born at St. Mary's Hospital and raised on the West Island. Her father is from Spain, her mother from Mexico, and she is fluent in Spanish. Outside of work she enjoys spending time with her husband and twin sons who were born in California. She is a strong supporter of patient advocacy groups, and volunteers her time with the Melanoma Network of Canada and Quebec Breast Cancer Foundation. She is also proactive in her community, volunteering her time in the children's program of her church.

We asked Dr. del Rincón to list a few of her articles whose work she is particularly proud of or enjoyed the most. This is what she provided:

Guo Q, Zi-Hui Li V, Nichol JN, Huang F, Yang W, Preston SEJ, Talat Z, Yu H, Zhang G, Basik M, Gonçalves C, Zhan Y, Plourde D, Jie S, Torres J, Marques M, Al Habyan S, Bijian K, Witcher M, Behbod F, McCaffrey L, Alaoui-Jamali M, Giannakopoulos N, Blackstone M, Postovit LM, **del Rincón SV\***, Miller WH\*. MNK1/NODAL signaling promotes invasive progression of breast ductal carcinoma in situ. 2019. *Cancer Research*. Apr 1;79(7):1646-1657.

Zhan Y, Guo J, Yang W, Goncalves C, Rzymiski T, Dreas A, Zylkiewicz E, Mikulski M, Brzózka K, Golas A, Kong Y, Ma M, Huang F, Huor B, Qianyu G, Wurzba SD, Torres J, Cai Y, Topisirovic I, Su J, Bijian K, Alaoui-Jamali MA, Huang S, Journe F, Ghanem G, Miller WH Jr, **del Rincón SV**. MNK1/2 inhibition limits oncogenicity and metastasis of KIT-mutant melanoma. 2017. *Journal of Clinical Investigation*. Nov 1;127(11):4179-4192.

Robichaud N\*, **del Rincon SV\***, Huor B, Alain T, Petruccelli A, Hearnden J, Goncalves C, Grotegut S, Spruck CH, Furic L, Miller WH Jr\*, Sonenberg N\*. Phosphorylation of eIF4E promotes EMT and metastasis via translational control of SNAIL and MMP-3. 2015. *Oncogene*. Apr 16;34(16):2032-42.