

## Postdoctoral Position in Computational Epigenetics

We are seeking a bioinformatics postdoctoral fellow to work under the direct supervision of Dr. Daniel De Carvalho at the Princess Margaret Cancer Centre - University of Toronto. The Princess Margaret Cancer Centre ranks as one of the top 5 cancer research centers in the world, consistently publishing high impact discoveries and acting as a world leader in several cancer-related research fields.

This project will focus on study the molecular mechanisms of how epigenetic therapy can be used to target Cancer Stem Cells and to prime for Immunotherapy in Colorectal Cancer. Our Lab is using and developing cutting edge experimental and computational methods based on cellular and molecular biology and next-generation sequencing. Candidates with strong background in epigenetics, genomics and cancer biology are encouraged to apply.

### Qualifications

- Ph.D in Bioinformatics or related areas
- Knowledge of epigenetics, genomics, genetics and cancer or ES cell biology would be an asset
- Experience in analyzing high throughput (epi)genomics datasets including WGBS, ChIP-seq and RNA-seq
- Experience with analytic tools such as R or Matlab
- Demonstrated excellent publication record of scientific achievement
- Excellent verbal and written communication skills
- Motivation to solve complex biological problems especially in the field of epigenomics
- Highly motivated and self-driven to address challenging questions in the field of epigenomics.

For more information, please go to <http://www.decarvalholab.org>

For consideration, please send a CV, a brief statement of scientific/research interests, contact information for three references and start date availability to: [epigenome.search@gmail.com](mailto:epigenome.search@gmail.com)

### Selected publications:

David Roulois, Helen Loo Yau, Rajat Singhanian, Yadong Wang, Arnavaz Danesh, Shu Yi Shen, Han Han, Gangning Liang, Trevor J. Pugh, Peter A. Jones, Catherine O'Brien, Daniel De Carvalho. DNA-demethylating agents target colorectal cancer cells by inducing viral mimicry by endogenous transcripts. **Cell**. 2015 *in press*.

Yang X et al. Gene Body Methylation can Alter Gene Expression and is a Therapeutic Target in Cancer. **Cancer Cell**. 2014 Oct 13;26(4):577-90.

De Carvalho DD et al. DNA methylation screening identifies driver epigenetic events of cancer cell survival. **Cancer Cell**. 2012 May 15;21(5):655-67.

Kelly TK et al. Epigenetic modifications as therapeutic targets. **Nat Biotechnol**. 2010 Oct 13;28(10):1069-1078.