

RNA-Interference (RNAi) Library

Our cancer researchers are eager to take their work to a new level with the help of the RNAi Library.

Here's what can happen with your support!

Breast Cancer

- Dr. Graham Dellaire, who uses live-cell imaging to understand how cancer cells respond to treatment, will use the RNAi Library to learn why recurrent breast cancers don't respond to chemotherapy. His findings will shed light on new ways to re-sensitize these breast cancer cells to chemotherapy. This is critical because breast cancer recurs within five years of initial treatment in one-third of women.

Cancer Mother Cells

- Dr. Patrick Lee – known internationally for his discovery that a common virus infects and kills cancer cells – wants to know if blocking a certain protein can control proliferation of cancer stem cells. These are mother cancer cells that don't respond to conventional therapies and keep churning out more and more cancer cells. They must be stopped to cure the cancer.

Anti-Cancer Drugs

- Dr. Paola Marignani has discovered that genetic mutation turns the cancer-suppressing protein LKB1 into a cancer-causing protein. The RNAi Library will help her identify clusters of genes that may contribute to the development of cancer. These disease-causing genes could be ideal targets for new anti-cancer drugs.

For my part, I am studying proteins on the surface of cancer cells that help cancer spread around the body.

The RNAi Library will help us understand what controls metastasis and find ways to block the deadly spread of cancer cells.

With your help, we will be able to purchase and install Atlantic Canada's first RNAi Library. The potential benefits are enormous and will continue to be so for years to come, as our dedicated researchers strive to find the life-saving answers so needed in the fight against cancer.



Sincerely,
Jonathan Blay

Dalhousie Professor, Pharmacology, Pathology and Biology
Scientific Director, Beatrice Hunter Cancer Research Institute