

## **B. Senior Breast Cancer Research Scientist Program**

The BCSC supports two outstanding Senior Breast Cancer Research Scientists within the TBCRU, and their expertise and research accomplishments are described below.

**Dr. Alison Allan** is a Senior Oncology Scientist and the Director of the TBCRU. Her translational research program is focused on cellular and molecular mechanisms of breast cancer metastasis; in particular the study of cancer stem cells (CSCs) and circulating tumor cells (CTCs) and how the knowledge gained from experimental studies in these areas can be translated to the clinic to benefit patients.

Dr. Allan is a Canadian leader in the development and validation of CTC blood tests to track metastasis, and has worked closely with the Canadian Cancer Trials Group to move this research into the clinic to benefit breast cancer patients. In 2013, Dr. Allan established a partnership with Janssen Oncology and Laboratory Services at the London Health Science Centre (LHSC) to translate her blood test expertise and instrumentation into the clinical hematology lab setting in order to make this test available to patients and clinicians throughout Canada-- making LHSC the first academic hospital in Canada to offer this testing to patients. A description of some of Dr. Allan's other ongoing breast cancer research can be found on the [BCSC Research page](#).

**Dr. Eva Turley** is a Distinguished Oncology Scientist at the TBCRU. Her translational breast cancer research program is focused on identifying the cellular signaling pathways that regulate both healthy and tumour cell migration and invasion during breast cancer metastasis and how this information can be translated to developing more effective and less toxic therapies for breast cancer.

Dr. Turley is internationally recognized for her ground-breaking work on a carbohydrate called hyaluronan and its partner protein RHAMM. She and other have shown that RHAMM is present in high levels in breast cancer and this is associated with poor patient outcome. More recently, Dr. Turley has been able to apply some of this knowledge to reducing radiation-associated skin damage that can occur when treating breast cancer. She has established successful partnerships with industry to produce a skin cream, and is now moving towards testing its treatment effectiveness in clinical studies in breast cancer patients receiving radiation.

### **New Clinician-Scientists Recruited to the TBCRU**

In addition to BCSC-funded scientists Dr. Allan and Dr. Turley, the TBCRU is very excited to welcome two new clinician-scientist recruits to the London Regional Cancer Program in 2019. These include medical oncologist **Dr. Ana Lohmann** (MD/PhD) and surgical oncologist **Dr. Armen Parsyan** (MD/PhD). Dr. Lohmann's research is focused on the assessment and clinical implementation of blood biomarkers for predicting relapse and directing treatment in breast cancer patients. Dr. Parsyan's research interests lie in the development of patient-derived experimental models that can be used for prediction of therapy response and pre-clinical testing of novel drugs for precision medicine.

Although not directly funded by the BCSC, both Dr. Lohmann and Dr. Parsyan were attracted to London because of the reputation of the TBCRU and the breast cancer research opportunities and resources provided by BCSC funding. They will be working closely with Dr. Allan within the TBCRU lab and their recruitment to London provides an important opportunity to accelerate translation of research findings into the clinic to benefit breast cancer patients.