

Changes in immune function during chemotherapy treatment for breast cancer

PROJECT DESCRIPTION

Breast cancer is the most common cancer among women, as 1 in 9 women over their lifetime will be diagnosed with this form of cancer. The women's immune system plays an important role in defending her against cancer. Women who are diagnosed with the hardest to treat forms of breast cancer will be offered neoadjuvant chemotherapy, a form of chemotherapy that involves 6 cycles, prior to surgery. There is little information on how this type of therapy affects the women's immune system. Our research group will be beginning a clinical trial in early 2019. Blood samples from each women in the study will be collected at the beginning of chemotherapy, half way through the therapy and at the end just prior to surgery. Our intern will join our research team and be involved in conducting the laboratory analysis on blood collected from women during the study. They will be performing various clinical immune test that involve identifying changes in the types and activation of the different white blood cells. They will conduct assays in our well-equipped immunology laboratory. The visiting student will gain knowledge and skills in immunology and oncology and have the opportunity to attend seminars in the fields of nutrition, immunology and oncology. With the help of the intern and the others on our team, our trial will provide important information on how the current forms of chemotherapy, used to treat breast cancer, influence immunity. Our work has the potential to benefit women diagnosed with the hardest to treat form of breast cancer.

FACULTY-DEPARTMENT

Agiculture, Life and Environmental Sciences – Agriculture, Food and Nutritional Sciences

OPEN TO STUDENTS FROM THE FOLLOWING INSTITUTIONS

Chinese universities participating in the [*Double First-Class Initiative*](#).

DESIRED FIELD OF STUDENT STUDY

Some lab experience (biology, biochemistry, microbiology, chemistry or immunology).

INTERNSHIP LOCATION

Edmonton Campus

NUMBER OF INTERNSHIP POSITIONS

1

INTERNSHIP DATES

Start: Anytime after May 1, 2018

End: Flexible

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.