

## **Pamela Klassen – University of Alberta**

**Project:** *Improving patient outcomes in non-small cell lung cancer with nutrient supplementation*



### **Biography**

Pamela is a Registered Dietitian who completed her undergraduate degree at the University of Manitoba, graduating with the University Gold Medal and the Undergraduate Award in Dietetics from Dietitians of Canada. She subsequently worked in maternal health, transitioned to diabetes education and finally, practiced in oncology nutrition at Cancer Care Manitoba.

Through supporting patients during cancer treatment, she recognized the need for new research and evidence to benefit this population who are vulnerable to malnutrition, wasting and long-term side effects of treatment. With encouragement from her colleagues and employer, she moved with her family to Alberta to pursue graduate studies with a focus on nutrition and metabolism in cancer.

Currently, Pamela is a Master's student in Nutrition and Metabolism in the Department of Agricultural, Food and Nutritional Sciences. She is passionate about doing research that informs clinical practice to improve patient outcomes. Her Master's degree is possible due to the strong partnership between the Department of Oncology within the Cross Cancer Institute and her supervisor at the University of Alberta, along with the patients who are willing to participate in clinical research for the benefit of others.

### **Project Summary**

Lung cancer is the leading cause of cancer-related death in Canada and is most often diagnosed at an incurable stage. Chemotherapy is given to keep the tumours from growing, lessen symptoms and provide longer life.

Recently, the addition of immunotherapy has been found to improve survival in a portion of patients. Chemotherapy and immunotherapy, however, can have difficult side effects for

many patients, sometimes resulting in fewer treatments.

Quality of life and ability to function, which are extremely important to patients, are also frequently impacted by lung cancer and chemotherapy. Many patients experience severe muscle loss, which limits their ability to do the activities they enjoy and recover from each treatment. Often patients express the feeling of 'living in someone else's body' because their body change is so profound, even when they continue to eat normally.

A nutritional supplement has been shown in previous studies to protect patients from treatment side effects while also improving the benefit of chemotherapy. This same supplement can slow or stop muscle loss in cancer patients, improving their daily function and quality of life.

These results have been found in small studies; therefore larger, well-designed studies are required so that the results can be confirmed and translated to a clinical practice setting. Pamela's research study at the Cross Cancer Institute aims to confirm whether this nutrient supplement, along with chemotherapy or immunotherapy, can improve the benefit of treatment while preserving muscle and function for patients.