Broccoli Metabolites Study

Main Study Questions

The purpose of this study was to follow the fate of four previously identified indole glucosinolates for 24 hr following consumption of broccoli. Indole glucosinolates are compounds that are found in broccoli that may have a role in human cancer risk reduction. In addition to the four known compounds, we hope to identify other compounds that appear in blood and/or urine after consuming broccoli.

Motivation for Research

Many studies have shown that eating Brassica vegetables, such as broccoli, is related to a decrease in the risk of certain types of cancer. Much of this research has focused on isothiocyanates, which are formed from a class of glucosinolates called aliphatic glucosinolates that occur in broccoli. There are other glucosinolates (namely indole glucosinolates) that have received less attention but also show promise for reducing the risk of cancer. The aim of this study is to investigate plasma and urinary metabolites of indole glucosinolates from broccoli and to identify novel metabolites that may have roles in reducing cancer risk.

The study ran from the beginning until the middle of November, 2017.