



TECH TO BUSINESS

CONTACT: ipm@innovatecalgary.com • 403.284.6400

Comprehensive Serum-Based Diagnostic for Colorectal Cancer

TECH ID# 696.7

Background

Colorectal cancer is the third most commonly diagnosed cancer and the third leading cause of cancer death. The majority of these cancers and deaths are preventable through increased access to cancer screening. However, only 50% of people aged 50 or older for whom screening is recommended report having received testing for colorectal cancer. Improving access to cancer screening through the development of new, non-invasive diagnostic tests can help address this current need.

Researchers at the University of Calgary have developed a non-invasive diagnostic test for the early detection of colorectal cancer.¹ The technology is based on serum metabolomics, or the identification of specific metabolite patterns in serum samples. The method relies on examining the relative abundance of specific metabolic markers in serum using NMR, GC-MS and LC-MS, and analyzing the data to make a clinical decision.

Competitive Advantages

- Low cost, non-invasive and accurate diagnostic test
- Potential to improve patient outcomes through early detection
- Enhanced staging accuracy enables doctors to select the right treatment for patients

Stage of Development

- Method detects benign adenomatous polyps and identifies candidates for screening colonoscopy.
- Method effectively stages colorectal cancer and provides quantitative treatment guidance.
- Validation was performed in a larger pool of patient samples (n>400).

¹ Farshadfar *et al.* "Serum metabolic profile as a means to distinguish stage of colorectal cancer" *Genome Med.* 2012 4:42; WO 2013171586 A2 "Metabolite Biomarkers for Staging Colorectal Cancer".