

## **The microbiome, prebiotics and health implications**

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The growing knowledge of health benefits related to prebiotics has peaked interest in studying the role of the gut microbiome. By definition, the host microbiome must be involved in fermentation of prebiotics. These are typically polysaccharides that are not digested by host enzymes. Our knowledge of the microbiota associated with prebiotic fermentation has advanced because of the availability and decreased costs of methods that do not rely on cultivation of gut microbiota. Often fermentation of prebiotics results in the production of beneficial metabolites. The most studied are short chain fatty acids (SCFA) that have been linked to several health benefits, including decreases in inflammatory diseases, metabolic syndrome and heart disease. These concepts will be covered in this presentation along with examples from clinical studies that we have been conducting using soluble corn fiber (SCF) prebiotics to investigate the role of the gut microbiome and its association with changes in calcium (Ca) absorption. These studies have shown that SCF can modulate the intestinal microbiota that correlate with increases in calcium absorption.