**Dietary Fibre and Starch Structures affects Gut Microbiota and Metabolites**

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Dietary fibre, including the Resistant starch, is not digested and absorbed in the small intestine of the human body and thus excursed to the large intestine. The carbon polymers are fermented by microbes to produce beneficial metabolites such as short-chain fatty acids (SCFAs) and organic acids. These metabolites are known to have proven health benefits in diversifying the gut microbiota, leading to immunomodulation and reduction of infections and metabolic diseases. The presentation focuses on how the form (soluble vs insoluble fibres), types (resistant starches, intact plant cells) and size of fibre are related to the diversity of microbiota and metabolites, including the SCFA and other organic acids based on the in-vitro and in-vivo fermentation studies. Understanding the rate and extent of microbial fermentation can help to design functional food with tailored gut functionality.