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**A survey on global metabolomics using serum in colorectal cancer: identification of common serum biomarkers**

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**ABSTRACT**

This survey aims to compare published serum metabolomic profiles of colorectal cancer (CRC) and to identify common metabolites affected. The literature search was conducted to include any experimental studies on global metabolomics profile of colorectal cancer using serum samples. Six studies published up to May 2017 were included. Several metabolites of glycolysis, tricarboxylic acid cycle, anaerobic respiration and protein/lipid metabolism were found to be significantly different between cancer and control samples. Common metabolome were found only with the amino acids. Tryptophan, phenylalanine, tyrosine, proline, leucine, valine and glutathione were reported to be down-regulated in five studies. The consistent amino acids disregulation found amongst the different studies which involved the use of different analytical platforms and different populations suggest that they can be used as diagnostic biomarkers for CRC.