**P20**

*Asia-Pacific Journal of Molecular Medicine 2017, 7 (SUPP 1)*

**Abstracts for 7th Regional Conference on Molecular Medicine (RCMM)**

**in Conjunction with 3rd National Conference for Cancer Research 2017**

**10-12th November 2017, Auditorium UMBI, Kuala Lumpur**

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

Nurul Azmir Amir Hashim1, Sharaniza Ab Rahim1, Wan Zurinah Wan Ngah2, Sheila Nathan3 and Musalmah Mazlan\*1

*1Faculty of Medicine, UniversitiTeknologi MARA, Jalan Hospital, 47000 Sungai Buloh Selangor, Malaysia. 2Faculty of Medicine UniversitiKebangsaaan Malaysia, Cheras Kuala Lumpur, Malaysia. 3Faculty of Science and Technology UniversitiKebangsaaan Malaysia, Bangi Selangor, Malaysia*

**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.