

# 3rd Scientific Workshop

## POSITIVE|COST|Action



**"Omics breakthroughs in the health effects of plant food bioactive"**

Thessaloniki (Greece)  
20th-21st September 2017

## **Host: microbiome co-metabolic processing of dietary polyphenols – a cross-over study with different doses of apple polyphenols in healthy subjects**

**Dra. Marynka Ulaszewska**

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Human metabolism of apple polyphenols is a co-metabolic process between human encoded activities and those of our resident microbiota. We are delighted to show nutrkinetics study where the aim was to effectively identify the metabolic products of various classes of apple polyphenols using an untargeted metabolomics. We assessed whether particular profiles of apple derived plasma/urine metabolites could be related to individual members of the gut microbiota. Finally we evaluated whether an higher concentration of polyphenols in the apple matrix, would lead to a corresponding increased metabolic output.

## **The impact of genotype on the metabolism and bio-efficacy of plant polyphenols**

**Prof. Anne Marie Minihane,**

**Norwich Medical School, University of East Anglia (UEA), Norwich, UK**

At a population level, there is growing evidence of the beneficial effects of plant polyphenols on health. However, there is wide variability in the response to increased intake, which is likely due to heterogeneity in their absorption, distribution, metabolism and elimination (ADME). A number of factors, including age, sex, gut microflora and genotype influence these metabolic process. In this presentation the impact of common gene variants on polyphenol ADME and bio-efficacy will be considered, which may help establish and refine dietary polyphenol intake recommendation for different population subgroups.