

## JOINT EVENT

10<sup>th</sup> International Conference on **Childhood Obesity and Nutrition**  
&  
2<sup>nd</sup> International Conference on **Metabolic and Bariatric Surgery**

June 12-13, 2017 Rome, Italy

**Childhood obesity: The relations between fatty acids, gut micro-biota and low grade inflammation****Ellie Wright**

EGW Research Institute LLC, USA

The purpose of this research is to analyze if low grade inflammation in obese children could be address with probiotics/prebiotic and fatty acids as they play a role in intestinal permeability, intestinal inflammatory responses and regulating insulin and fat storage. Recent evidence suggests that gut micro biota is involved in the control of body weight, energy homeostasis, and inflammation and plays a role in the pathophysiology of obesity. Obesity in children is characterized by low grade inflammation expressed by pro-inflammatory cytokines, adipokines and reactive oxygen species. With the increased usage of antibiotics and refined foods, there is an increased alteration of micro biota done via several mechanisms: increasing gut permeability with subsequent metabolic inflammation, impairing short-chain fatty acids synthesis, and altering bile acids metabolism. Probiotics/prebiotics affect the gut micro biota directly and indirectly by modulating its bacterial content and through bacteriocins. Long-chain saturated fatty acids are associated with dysbiosis while short-chain and certain unsaturated fatty acids are protected against dysbiosis and may promote insulin sensitivity and regulate energy metabolism. This research aims to find nutritional approaches for preventing and attenuating the pathological consequences of obesity in children.

**Biography**

Ellie Wright completed her Bachelor of Arts and master degree at arizona state university. she completed her graduate certificate in geriatric and gerontology at university of arizona. in 2015, she completed her doctoral degree in naturopathic medicine at southwest college of naturopathic medicine, az, USA. she is a passionate researcher in natural medicine, prevention and cure.

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