One of the pressing problems of the modern is weight control. Overweight and obesity increase the risk for a number of diseases, namely, cardiovascular diseases, type 2 diabetes, dyslipidemia, premature death, non-alcoholic fatty liver disease as well as different types of cancer. Approximately 1.7 billion people in the world suffer from being overweight, most notably in developed countries. The growing number of obese people is often associated with unhealthy nutrition with monosodium glutamate.

Current research efforts have focused on host and environmental factors that may affect energy balance. It was hypothesized that a microbiota profile specific to an obese host with increased energy-yielding behavior may exist. Consequently, the gut microbiota is becoming of significant research interest in relation to obesity in an attempt to better understand the etiology of obesity and to develop new methods of its prevention and treatment. Prebiotics and probiotics have physiologic functions that contribute to the health of gut microbiota, maintenance of a healthy body weight and control of factors associated with obesity through their effects on mechanisms that control food intake, body weight, gut microbiota and inflammatory processes.

"Modern problems of nutrition in children and youth"