

## Implications of interleukin-6 genetic polymorphism in morbidly of obese Saudi population

Rabbani Syed and Khalid Alharbi

King Saud University, Kingdom of Saudi Arabia

Rising levels of obesity are a global problem that is being exported from affluent to developing nations through the gradual westernization of lifestyle. Population of Saudi Arabia is going through a nutrition transition where customary and traditional food is being replaced by fast food high in fat, sugar and salt. This is happening along with changes in lifestyle and reduced physical activity. Interleukin-6 (IL-6) is a central player in the regulation of inflammation, haematopoiesis, immune response and host defense mechanisms. During the last decade, an accumulating amount of data suggested a pivotal role for IL-6 in metabolic processes, thus fortifying the picture of IL-6 as a multifaceted, pleiotropic cytokine. The aim of this work was to study the interaction between genetic polymorphisms (single-nucleotide polymorphisms, SNPs) of pro- and anti-inflammatory cytokine and the risk of developing obesity in modifying disease activity in Saudi Arabia population. Genotyping of IL6 was performed by the real-time polymerase chain reaction technology, using the Taq Man 5'-allele discrimination assay. IL6 (rs1554606) AA vs AG ( $p < 0.01$ ) and AA vs GG ( $p < 0.01$ ) shows significant difference between male and female group in genotypic as well as allelic distribution differ significantly, while AG vs GG did not differ significantly ( $p > 0.5$ ).

### Biography

Rabbani Syed has completed Ph.D. from University of Mysore, India in 2009. He has 10 years of research experience in various Research fields. After his completion of Masters in Microbiology he joined in Ph.D. and done various research Projects simultaneously. He has published 20 publications in Various ISI indexed journals and guided many post graduates for their thesis compiling in their course. He has been working as Research Scientist and Principle Investigator for various projects in the King Saud University and guiding students in their research oriented programs.

[rsyed@ksu.edu.sa](mailto:rsyed@ksu.edu.sa)