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# Evaluation of genetic association between type 2 diabetes mellitus and thyroid dysfunction in people of Chakwal district, Pakistan

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Thyroid hormones play an integral part in regulating many of the important metabolic activities by activating nuclear transcription of large numbers of genes, synthesizing new proteins which are involved in growth, central nervous system (CNS) development, cardiovascular mechanisms and many of the metabolic activities such as glucose absorption, gluconeogenesis and lipolysis. The Thr92Ala (rs225014) polymorphism in the type 2 deiodinase (DIO2) gene has been associated with insulin resistance (IR) and decreased enzyme activity in human tissues but kinetic studies failed to detect changes in the mutant enzyme, suggesting that this variant might be a marker of abnormal DIO2 expression. As

iodothyronine deiodinases type DIO1 and DIO2 have been associated controversially to thyroid dysfunction in various studies, this study is aimed to determine the possible genetic association between one of the SNP i.e. rs225017 of DIO2 enzyme with type 2 diabetes mellitus.

### Speaker Biography

Maqbool A has completed her PhD at the age of 29 years from University of Ulm, Germany. She is the Assistant/professor at Dept. of Molecular Biology, virtual University of Pakistan. She has over 20 publications and 15 Master students have passed out under her supervision and her impact factor is 20..

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