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## Association of genetic variability with type 2 diabetes and cardiovascular disease in Mexican subjects

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Recently, the association of genetic polymorphisms with different diseases has highlighted the importance in the presentation, evolution and prognosis of chronic degenerative diseases, making it a priority to assess the genetic diversity of specific populations. Mexico has a population of extraordinary genetic diversity, which results in populations with a different genetic background; this has not only historical, but also medical importance, because this diversity can affect characteristics of clinical interest and propensity to many diseases. Several studies have reported that Type2 diabetes is a chronic degenerative disease whose presentation is due to different risk factors, with a pathophysiology associated with low-intensity chronic inflammation; however this association depending on polymorphism of pro-inflammatory cytokines. In this context, our study group has studied the association of -598, -572 and -174 IL-6 polymorphism with the risk of developing diabetes, concluding that in subjects from central Mexico were not found all haplotypes and those associated with a lower risk for diabetes are at lower prevalence. On the other hand, the major complication of diabetes is cardiovascular disease due among others to the presence of oxidative stress, we have recently reported that GPx3 is increased in obese subjects and in subjects with metabolic syndrome, moreover the rs8177409 polymorphism is associated with increased cardiovascular risk measured by Triglyceride/HDL-C index. Currently, our study group is conducting studies to determine if the presence of genetic polymorphism of IL6 and GPx3 influence the response of subjects to preventive advice on the risk of developing diabetes and cardiovascular disease.

### Biography

Irma Zamora-Ginez completed her MA and PhD in Biochemistry and Molecular Biology. She is a Graduate of the Faculty of Medicine and Pharmaco-biology Chemistry. Currently, she is a Coordinator of the Master of Medical and Research and is a Member of National System of Research. Her career has focused largely on the research of pathophysiology, genetics and risk factors of diseases affecting Mexican society, such as type 2 diabetes and cardiovascular disease.

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