

A Genomics Study of Type 2 Diabetes Mellitus in U.S. Air Force Personnel

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Abstract

The military community is at high risk for type 2 diabetes (T2D), especially as it relates to military beneficiaries, although preventive measures can be implemented to reduce disease onset. This study evaluates the prevalence of risk-associated single nucleotide polymorphisms in patients diagnosed with T2D within active duty, retired military, and military-dependent populations on Lackland Air Force Base compared to nondiabetic controls. Results will be used as a basis of comparison to analyze risk-conferring genotypes in the young, healthy active duty population to generate the prevalence of T2D risk-associated factors in our current and future war fighters. Identifying genetic markers of T2D prior to abnormal glucose control and insulin resistance may ultimately adjust future risk through early detection, healthy lifestyle modifications, and disease management programs.

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Abbreviations: (AFAD) Air Force active duty, (BMI) body mass index, (PCR) polymerase chain reaction, (SNPs) single nucleotide polymorphisms, (T2D) type 2 diabetes, (USAF) United States Air Force

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