Obesity susceptibility genes in a Spanish population using sequencing data

Isaac De la Hoz

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Introduction

Obesity is defined as an increase in fat mass that is sufficient to adversely affect health. According World Health Organization, people with a body mass index (BMI; weight in kg/height in meters2) higher than 30 kg/m2 are considered obese. Nowadays, obesity has become a common health problem among the different human popolations worldwide. In Europe, for instance, 10%-20% of people are classified as obese. Evidence for genetic contributions to body weight comes from family, twin, and adoption studies, which cumulatively demonstrate that the heritability (fraction of the total phenotypic variance of a quantitative trait attributable to genes in a specified environment) of BMI is between 0.71 and 0.86.

The objective of this study is to discover genetic variants associated with the obesity from 16 samples of obese people.

Data description

We have 16 whole exome sequence data from 16 different obese people...

Methodology

Variant Calling

R procedure

GATK haplotype caller

Variant annotation

Statistic analysis