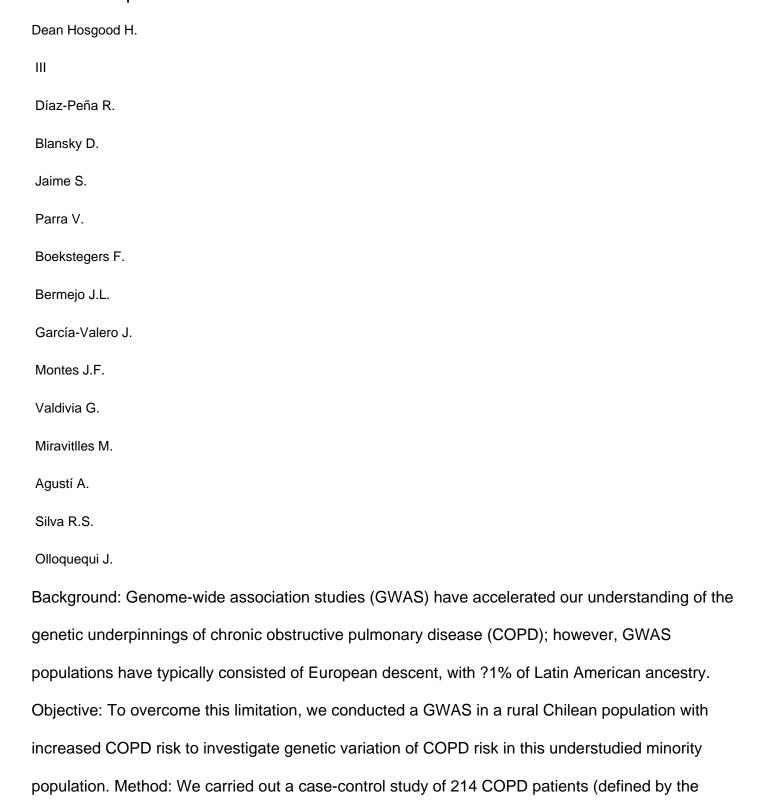
PRDM15 Is Associated with Risk of Chronic Obstructive Pulmonary Disease in a Rural Population in Chile



GOLD criteria) and 193 healthy controls in Talca, Chile. DNA was extracted from venous blood and

genotyped on the Illumina Global Screening Array (n = 754,159 markers). After exclusion based on

Hardy-Weinberg equilibrium (p ? 0.001), call rates (<95%), and minor allele frequencies (<0.5%)

in controls, 455,564 markers were available for logistic regression. Results: PRDM15 rs1054761 C allele (p = 2.22 × 10-7) was associated with decreased COPD risk. Three PRDM15 SNPs located on chromosome 21 were significantly associated with COPD risk (p < 10-6). Two of these SNPs, rs1054761 and rs4075967, were located on a noncoding transcript variant region of the gene. Conclusion: PRDM15 overexpression may play a role in the B-cell dysregulation in COPD pathogenesis. To the best of our knowledge, the association between PRDM15 and COPD risk was not previously found in GWAS studies in largely European populations, highlighting the importance of investigating novel variants associated with COPD risk among ethnically diverse populations. © 2019 S. Karger AG, Basel. Copyright: All rights reserved.

pathogenesis. To the best of our knowledge, the association between PRDM15 and
not previously found in GWAS studies in largely European populations, highlighting
of investigating novel variants associated with COPD risk among ethnically diverse
2019 S. Karger AG, Basel. Copyright: All rights reserved.
Biomass
Chronic obstructive pulmonary disease
Genetics
Genome-wide association study
SNP
DNA
aged
Article
case control study
Chile
Chilean
chromosome 21
chronic obstructive lung disease
controlled study
DNA extraction

female

gene

gene frequency
gene overexpression
genetic association
genetic risk
genetic variation
genome-wide association study
genotype
human
major clinical study
male
pathogenesis
PRDM15 gene
priority journal
rural population
single nucleotide polymorphism