

***CDKAL1* and type 2 diabetes: a global meta-analysis**

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ABSTRACT. *CDKAL1* (cyclin-dependent kinase 5 regulatory subunit-associated protein 1-like 1) has been shown to be associated with type 2 diabetes in various ethnic groups; however, contradictory results have been reported. We performed a comprehensive meta-analysis of 21 studies for rs7756992, 17 studies for rs7754840 and 10 studies for rs10946398 variants of the *CDKAL1* gene to evaluate the effect of *CDKAL1* on genetic susceptibility for type 2 diabetes. We found a significant association of rs7756992, rs7754840 and rs10946398 in *CDKAL1* with type 2 diabetes (odds ratio (OR) = 1.15, 95% confidence interval (CI) = 1.07-1.23, $P < 0.0001$; OR = 1.14, 95%CI = 1.06-1.24, $P = 0.001$, and OR = 1.12, 95%CI = 1.07-1.18, $P < 0.0001$, respectively). We conclude that there are significant associations between *CDKAL1* polymorphisms and type 2 diabetes, but these associations vary in different ethnic populations.

Key words: *CDKAL1*; Meta-analysis; Single nucleotide polymorphism; Type 2 diabetes