

IL6 genotype and creatine kinase response to exercise

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Dear Editor,

Yamin and colleagues recently reported an association of a common single nucleotide polymorphisms (SNP) in the promoter region of interleukin-6 (IL6) gene creating a change from a G to C at position -174, and that of tumor necrosis alpha (TNF) gene creating a change from a G to A at position -308 with systemic creatine kinase response to eccentric exercise (Yamin et al. 2008).

Previously, Olomolaiye et al. (1998) described that the presence of allele C of the *IL6* SNP -174 creates a restriction site for *Nla*III, and Fishman et al. (1998) further investigated the effect of this SNP on *IL6* promoter activity and also genotyped healthy Caucasian subjects and patients with juvenile chronic arthritis. However, in the paper Yamin et al. (2008) erroneously refer to this polymorphism with a NCBI reference SNP ID rs13447445, which is in fact located at position -61 of the *IL6* gene, and not at position -174 with an ID rs1800795. Similarly, the *TNF* SNP -308 investigated by the authors should be referred with rs1800629, and not with rs361525 which is located at position -238.

Furthermore, the authors describe that they amplified a region for genotyping with *Nla*III digestion although this genomic region contains the two *IL6* SNPs (rs1800795 and rs13447445) that share a G to C transition, thus creating multiple sites for *Nla*III, in addition to an internal site at location -293 to -296. Hence this raises a concern and argues whether the relatively low frequency for genotype CC reported (0.03) (Yamin et al. 2008) can rather be

explained by technical limitations of the assay or data interpretation than true characteristics of the population investigated. Fortunately, genotyping assays are available that can better overcome such potential pitfalls (Marras et al. 1999; Sylvain et al. 2004). Nevertheless, it is imperative that the authors address this for their data interpretation as it may otherwise leave the reported association of *IL6* -174 SNP on eccentric exercise-associated creatine kinase response unrevealed.

References

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