Reply to “IL6 genotype and creatine kinase response to exercise”

Chen Yamin

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Dear Editor,

The present letter is a reply to the comments of Jani Lappalainen in Eur J Appl Physiol (2009) 106:315, regarding our study “IL6 (−174) and TNFA (−308) promoter polymorphisms are associated with systemic creatine kinase response to eccentric exercise”, by C. Yamin, J. A. R. Duarte, J. M. F. Oliveira, O. Amir, M. Sagiv, N. Eynon, M. Sagiv, R. E. Amir.

The initial remarks of Jani Lappalainen are indeed correct; as we did not indicate the appropriate IL6 −174 and TNF −308 NCBI reference numbers. Hence, the NCBI reference IDs must be changed to rs1800795 and rs1800629, respectively. Jani Lappalainen further raised questions regarding the low frequency for the genotype CC reported in our subjects, suggesting that technical limitations or data misinterpretation could be responsible for the observed results. In fact, a G/C transition at position −61

(rs13447445) lies in the same genomic region as IL6 −174 SNP (rs1800795). However, rs13447445 comprises only the G allele and no transition has been reported in NCBI. As a result, the presence of such SNP does not promote any changes in the number and size of the fragments of IL6 −174 SNP following digestion with NlaIII. Accordingly, the digestion of 300-bp fragment with Nla III restriction enzyme will always yield four fragments when the C allele is present (13, 54, 111, and 122 bp) and three fragments when G allele is present (13, 54, and 233 bp). Such findings argue against the technical limitations suggested by Jani Lappalainen and support our finding that the observed genotypes are indeed due to the true characteristics of the population investigated.

In light of the above, we contend that our results are valid and supportive of the association of the IL-6 −174 (rs1800795) with the creatine kinase response to eccentric exercise.

C. Yamin (✉)
Laboratory of Genetics and Molecular Biology,
Sports Medicine Division, The Zinman College of Physical
Education and Sport Sciences at the Wingate Institute,
42902 Netanya, Israel
e-mail: chen-y@wincol.ac.il