Reviewer's report

Title: Variable number of tandem repeat polymorphisms of the interleukin-1 receptor antagonist gene IL-1RN: a novel association with the athlete status.

Version: 1 Date: 26 November 2009

Reviewer: Agnieszka Seremak-Mrozikiewicz

Reviewer's report:

The analysis was performed on the large group of 205 athletes and 458 non-athlete controls. In both groups genetic polymorphisms in the IL-1beta and IL-1ra genes were determined. The Authors obtained the interesting results connected with polymorphism of IL-1ra gene and concluded that this gene predispose to athlete status among with subjects. This study refers to very interesting problem connected with inflammatory and repair reactions, the Authors apply modern molecular methods and correct statistical analysis. The purpose of the study is well defined. The methods used in the performed investigation are appropriate and well described. The research is good arranged and the results have statistical powerful. The discussion and conclusions are well balanced and adequately supported by the data. The title of manuscript is informative and clear. The abstract convey accurately the main idea and what has been found during performed investigation. The paper is clearly arranged. The writing is acceptable.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.