



Editor's Note

## New Strategies for Enhancement of Athletic Performance

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The magnitude, precision and accuracy of athletic performance are determined by several factors. Precognition, intuition, or emotional stimuli could potentially pre-empt the performance pattern. The nutritional status of the athletes particularly those related to oxygen transport within the blood also contribute immensely to the athletic performance: consequently may require amendments in the proportion of dietary intake. New training methodologies need to be constantly tried and tested that could bestow additional subtle capabilities among athletes. Effective and precise monitoring of bio-medical parameters is also essential for personalized training and practice approaches. The current issue of the journal is constituted by research, review and case study articles mostly focusing on the above mentioned aspects. This issue deals with scientific attempts focusing on enhancing the athletic performance by virtue of novel training methods or improvement of nutritional status as well as evaluation of the parameters associated with athletic training.

Pates [1] performed a thematic analysis of transcripts describing the subjective experiences of a form of intuition called precognition among elite golfers. The study identified five major themes associated with intuition- 'clutch situations,' emotionally arousing stimuli,' 'pre-feeling,' 'self-talk,' and 'prospective imagery' and further suggested that precognitions manifest in clutch situations and pre-empt performance excellence. This study is of academic and practical significance in optimizing performance based on the phenomenon of intuition.

Iron deficiency anemia impairs performance among athletes. Imamura et al. [2] reviewed the iron nutritional status and dietary treatments among the karate players who compete under the World Karate Federation rules. The study revealed that hemolysis was

prevalent among different player groups and females were at risk of iron deficiency anemia due to relatively lower iron intakes than male players. The study suggested that dietary modification ensures adequate iron intake and prevents of iron deficiency. The study also emphasized on wider and longitudinal studies particularly among adolescents.

Snowden et al. [3] have recognized that three dimensional multiple object tracking training could potentially improve cognitive performance among high-performance swimming athletes. A total of fifteen experimental participants were assessed for off the block reaction times and visual reaction times and reaction times to auditory cues before and after the training that spanned over a period of five weeks. The study revealed significant improvements in off-the-block reaction time after the sessions of training and proposed such training as a novel method.

Rogers [4] reported a case study of a 62 year old male recreational cyclist to evaluate the potential of cardiac inter-beat fractal complexity index to demarcate the low intensity training. The study revealed that the transition of the index to an uncorrelated low complexity state occurred just above the ventilator threshold while the complexity index was related to cycling power, ventilation rather than absolute heart rate. This study is of significance in personalized low intensity exercise prescription based on an index of non-linear heart rate variability.

### References

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