

## Sports Performance Clinical Trial

**Dietary antioxidant supplementation combined with quercetin improves cycling time trial performance.**

Holden, Mefford Karl. International Journal of Sport Nutrition and Exercise Metabolism, 2006, 16, 405-419

An independent, double-blind, placebo-controlled crossover study on the effect of FRS on cycling performance in eleven elite cyclists was completed at Pepperdine University in June 2004 and has been published in the International Journal of Sports Nutrition and Exercise Metabolism. The results were dramatic - a 3.1% improvement in overall time in a 30 km simulated mountainous time trial.

Lead Researcher Dr. Holden MacRae says of the results:

“Exercise performance changes of 1-4% are significant and usually mean the difference between winning and losing. Changes of this magnitude are typically achieved in athletes only by blood doping or living at high altitude. Daily use of FRS improved high intensity cycling time-trial performance by 3.1%, a very significant effect purely through consumption of a liquid dietary supplement.”

Dr. Marcus C.C.W. Elliott, MD, a Harvard-trained physician specializing in exercise physiology and a New Sun Nutrition advisor, believes that FRS also has powerful cross-over applications for casual athletes as well as the non-athletic by preventing oxidative cell damage and increasing energy for daily activity.

According to Dr. Elliott:

“For over a decade I’ve believed that our next breakthrough in athletic performance would involve a powerful antioxidant cocktail. From these impressive study results, I now think FRS may be that breakthrough.”

The study investigators concluded that the performance improvement was likely through multiple pathways including the enhancement of substrate conversion to mechanical energy, facilitation of central nervous system function, and mechanisms that improve immune function and reduce the inflammatory responses associated with high intensity exercise.