

PROJECT REVIEW

“A multi-parametric approach to remove the influence of plasma volume on the ABP during a UCI cycling stage race”

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Fluctuations in plasma volume present a major confounding factor to the analysis of an Athlete's Biological Passport (ABP) profile. A recently developed model for plasma volume estimation via a simple blood test will be applied to samples collected during a cycling stage race. The model will be used to correct the concentration based haematological markers of the ABP, in order to account for the natural progressive plasma volume expansion induced by the multi day stage racing. The proposed research serves to validate the model in an anti doping context, which if successful presents an exciting step forward for the ABP and anti doping authorities.