

DEEPn netværket: Live High – Train High altitude training compared to heat training and control

Institution

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Projektperiode

Nov 2022 – Juni 2023

Projekt-resume

This project investigates if altitude- and heat training may increase components of exercise performance in endurance athletes. Endurance exercise performance relies amongst others on a high blood volume and a high number of mitochondria within the skeletal muscle. Both altitude and heat exposure may facilitate these in humans. The purpose of this study is to investigate these physiological variables in relation to altitude and heat training in elite athletes and compared to a control group. It is hypothesized that the physiological changes induced by altitude and heat training will increase exercise performance. We furthermore seek to investigate if potential adaptations can be maintained by a reduced stimulus.

In this study, blood volumes will be determined by CO re-breathing, skeletal muscle mitochondrial volume density will be quantified by electron microscopy in micro-biopsy samples obtained from the study participants and exercise performance will be determined by standard laboratory based testing.