



THERMOREGULATION STUDY TO BE UNDERTAKEN IN INNSBRUCK

World Athletics is recruiting athletes who are competing at the World Mountain and Trail Running Championships in Innsbruck, Austria, to take part in a thermoregulation study.

World Athletics' Health & Science Department, together with the University Hospital Innsbruck and the UMIT TIROL - Private University for Health Sciences and Health Technology, Hall, Austria, will conduct thermoregulation, cardiac response and blood hemostasis research during the event in Innsbruck, taking place between 6-10 June.

Following the work carried out in this field at the World Athletics Championships Doha 2019 and the World Athletics Race Walking Team Championships Muscat 22, World Athletics' Health & Science Department continues to investigate the body's responses in athletes competing in challenging environments. Even though temperatures are expected to be cooler in the mountains of Innsbruck than they were in the Arabian Peninsula, athletes will be exposed to different stressors such as long race duration, elevation, altitude, weather conditions and thermal amplitude from the heat in the valley to the cold of the summits.

Researchers are particularly interested in evaluating the thermoregulatory, cardiac response and blood hemostasis profiles of elite trail and mountain runners during the long trail and classic mountain senior and U20 races. They will also specifically look at athletes with a history of heat-related illness in the past 24 months, to identify if that may affect their response during competition.

Participants will be required to complete a short online survey and have their in-race core and skin temperature measured non-invasively using a small ingestible temperature capsule and small skin temperature sensor, respectively (e-Celsius Performance, BodyCap, Caen, France). Cardiac response during the race will be

measured with an ultra-light wearable monitor (S-Patch, Wellysis, Seoul, South Korea). Finally, a small blood collection will help to monitor the hemostasis and inflammation process, as both parameters can provide important knowledge on the consequences of ultra-long distance running on the health of runners.

Through this research, the World Athletics Health & Science Department hopes to improve the scientific knowledge on thermoregulation, and better understand the relation between core temperature, skin temperature, dehydration and performance.

It will also help to improve the recommendations for athletes competing in challenging environmental conditions and attempt to reduce practice-related risks.

Any athletes competing in the long trail and the classic mountain senior and U20 races at the World Mountain and Trail Running Championships in Innsbruck who would be interested in taking part in this research are asked to contact:

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