



Heat tolerance in humans:

Implications for balancing force protection with operational capacity building

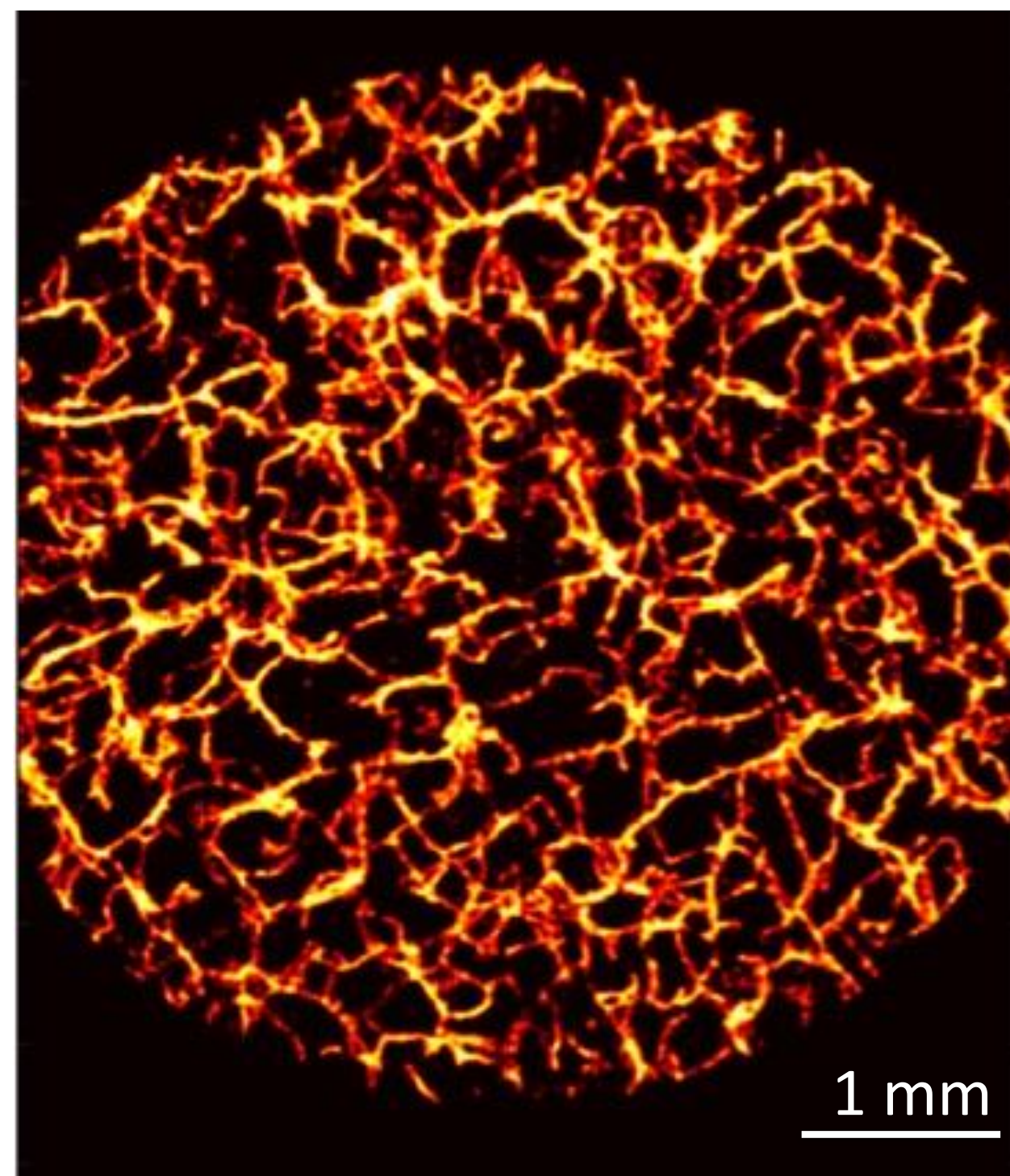
Purpose

- To study the reasons for different responses that occur between people when they are exposed to the same heat and exercise challenge.
- Identify variables that predict heat resilience in Defence personnel.

Schedule

- 18 month project (Jan 2020-June 2021)
- FY19-21: Data collection for i) acute heat and exercise exposure study and ii) heat acclimation study
- FY20-21: Data analysis and dissemination of findings (to Defence and academic communities)

New insights into thermoregulation



Magnified image of skin blood flow regulating body temperature using optical imaging.

Product

- Quantify the proportion of people who do not tolerate heat and exercise stress
- Identify physiological variables associated with the tolerability of heat and exercise stress
- Develop an assessment to identify Defence personnel at risk of heat injury
- Develop strategies to improve the heat tolerance of Defence personnel

Partners

- University of Western Australia: Howard Carter, Daniel Green, Shane Maloney
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- University of Otago: Jim Cotter
- DST: Mark Patterson