



THERMOMICS Report Summary

Project ID: [239521](#)

Funded under: [FP7-PEOPLE](#)

Country: Greece

Final Report Summary - THERMOMICS (Unraveling the functional architecture of the human thermoregulatory system through immunological, circadian and sensory mechanisms: focus on the mature European population)

Classical heat illness and death are major public health issues during exposure to heat stress for the elderly. Thousands of deaths among the elderly have been attributed to heat waves that have encompassed Europe in recent summers, while a higher frequency and intensity of heat waves is projected to lead to an increase in heat-related deaths as a result of global warming. The THERMOMICS project addressed several mechanisms that may explain the sequence of events leading to heat stroke and death. The project's objective was to identify whether the regulated index of human thermoregulation is temperature- or heat-based. The THERMOMICS experiments aimed at applying thermal stimuli in different bodily systems while making precise time-based measurements of temperature at different body areas as well as total body heat storage. This procedure generated evidence suggesting that the observed responses in each system correspond more appropriately to alterations in heat content and only to a lesser extent in temperature. Thermoregulation-related mortality is a significant public health issue even in temperate to warm climates. Several papers on these issues have been published based on the research conducted in THERMOMICS. Therefore, the benefit from the THERMOMICS research is noteworthy because it has increased our understanding of the pathophysiological mechanisms related to thermal stress and it has related the progressive changes in the thermal strain to inflammatory responses, and effects on the circadian rhythm and the sensory system.

Contact

Elias Houstis, (President)

Tel.: +302421096740

Fax: +302421096750

[E-mail](#)

Subjects

[Coordination and Cooperation - Scientific Research](#)

Information source: SESAM

Last updated on 2014-09-18

Retrieved on 2016-11-17

Permalink: http://cordis.europa.eu/result/rcn/148116_en.html

© European Union, 2016