

Information for Potential Principal Investigators (PIs)

STAK@Home – STrengthening Altitude Knowledge

Background of the Study

STAK@Home is an international research project investigating the level of knowledge among mountaineers and high-altitude travelers regarding altitude-related illnesses, such as Acute Mountain Sickness (AMS), High-Altitude Cerebral Edema (HACE), and High-Altitude Pulmonary Edema (HAPE). Previous studies show that knowledge about these conditions is often limited, even among experienced alpinists. This knowledge gap can lead to insufficient prevention, delayed recognition, and inadequate treatment of altitude-related complaints.

Based on a recently published international expert consensus, we developed a questionnaire that assesses both what people know and how confident they are in their answers (Berendsen et al. , 2022).

Aim of the Study

The primary aim is to gain global insight into knowledge levels regarding altitude illness among (semi-)experienced mountaineers and trekkers. We investigate which factors are associated with sufficient knowledge, such as education level, prior training, and high-altitude experience. Additionally, we collect background information to better characterize the participant population, including data on physical and mental health, risk perception, and previous high-altitude exposure. The results are intended to support improved education, prevention strategies, and health policies within the mountaineering context.

Study Design

Participants complete an online questionnaire, including the STAK test. The survey consists of six sections, including digital informed consent, and takes approximately 25–30 minutes to complete. Participation is anonymous and voluntary.

- The project is conducted entirely online.
- We provide AI-assisted translation drafts, platform hosting, data management, and technical support.
- The study has received ethical approval in multiple countries and has been successfully implemented in regions such as the Alps.

Your Role as Local Principal Investigator (PI)

As a local PI, you will contribute to the success of STAK@Home by:

- Coordinating local ethical approval.
- Review the questionnaire in your language for accuracy and clarity.
- Recruiting participants, for example, through mountaineering associations, guide training programs, or high-altitude tour operators.
- Encouraging participation in the online questionnaire.

You will be acknowledged as part of the *PI@Home Expert Team*, which is listed in all resulting publications.

Ethical Standards and Data Protection

The study complies with the General Data Protection Regulation (GDPR, EU 2016/679). All data are:

- Fully anonymized.
- Securely stored on LUMC servers and the Castor EDC platform.
- Accessible only to authorized personnel.

Each participant receives a unique code that allows access to their data (only if requested). Without this code, their data cannot be traced back to them.

Interested in Participating?

We are looking for motivated local PIs to join this international initiative. While prior research experience is not required, the ability to submit an ethics application to the appropriate authority in your country is essential. Motivation, a relevant network, and a strong affinity with the topic are the key qualifications we are looking for.

If you have any questions, would like more information, or are interested in joining the project, feel free to contact us:

 hoogtegeneeskunde@protonmail.com  <https://www.hoogtegeneeskunde.nl/STAK/STAK@Home/stak.php>

Berendsen RR, Bartsch P, Basnyat B, Berger MM, Hackett P, Luks AM, Richalet JP, Zafren K, Kayser B and Group SP. Strengthening Altitude Knowledge: A Delphi Study to Define Minimum Knowledge of Altitude Illness for Laypersons Traveling to High Altitude. *High Alt Med Biol* 2022; 23(4): 330-337 <https://doi.org/10.1089/ham.2022.0083>