

Mt. Everest, Nepal April 2013 – The Cyranose™ Handheld Reaches New Heights!

New research into critical illness and the effects of reduced oxygen on the human body is being conducted in the Himalayas of Nepal by an international team of doctors and scientists from University College London, University of Southampton and Duke University. The Cyranose 320 is used to measure breath samples collected from climbers, sherpas and volunteers to determine if hypoxia induced changes can be detected from exhaled breath in real-time. If so, and taken together with results from other analyses, the team hopes to make recommendations for improved critical care practice to understand and minimize the impact of reduced oxygen on vital organs. More information on hypoxia research and the Xtreme Everest program can be found at <http://www.xtremeeverest.co.uk/home>



Physiological Reports

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The Smell of Hypoxia: using an electronic nose at altitude and proof of concept of its role in the prediction and diagnosis of acute mountain sickness

<https://physoc.onlinelibrary.wiley.com/doi/full/10.14814/phy2.13854>

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There were significant differences between breathprints of participants who remained AMS negative and those whom later developed AMS (CV-LDA 68.8%, ROC-AUC 0.76). PCA demonstrated discrimination between Sherpas and lowlanders (CV-LDA 89.2%, ROC-AUC 0.936). This study demonstrated the feasibility of breath analysis for VOCs using an e-nose at high altitude. Furthermore, it provided proof-of-concept data supporting e-nose utility as an objective tool in the prediction and diagnosis of AMS. E-nose technology may have substantial utility both in altitude medicine and under other circumstances where (mal)adaptation to hypoxia may be important (e.g., critically ill patients).

Contact Sensigent at sales@sensigent.com for more information on the Cyranose® 320 and our other products for clinical testing.