



News Release

Issued: 23 April 2014

PHOTO CALL

**1PM, THURSDAY, 24 APRIL 2014
CLIMBING WALL, CENTRE FOR SPORT & EXERCISE
UNIVERSITY OF EDINBURGH, 46 PLEASANCE EH8 9TJ**

Students get in shape for high level research into deadly condition

Intrepid medical students who are to conduct key research high in the Andes will be put through their paces at a training session tomorrow (Thursday).

The University of Edinburgh students, who are to study the effects of altitude and low-oxygen environments on the human body, will be in the gym to complete a session on a climbing wall.

Thirty students and alumni from the University are to undertake an ambitious expedition to Bolivia, which will set-out from the UK on 30 May.

The APEX 4 (Altitude Physiology Expeditions) team will conduct experiments at more than 5,300m in order to shed new light on potentially fatal conditions that appear to strike randomly at high altitudes.

The APEX 4 study could improve the safety and wellbeing of millions of climbers and skiers who ascend to high altitude each year. It could also help patients in hospital intensive care units who suffer from very low blood oxygen levels.

The team will research High Altitude Pulmonary Oedema (HAPE) – an illness caused by fluid build-up in the lungs – and High Altitude Cerebral Oedema (HACE), which is caused by a build-up of fluid in the brain. Both conditions are potentially fatal.

The students will also research acute mountain sickness (AMS), a condition that causes headache, nausea and fatigue. It is often a sign that a person is at risk of HAPE and HACE.

The previous APEX 3 expedition, in 2011, used portable ultrasound scanners to measure fluid in the lungs of members of the party. They also examined whether a person's genetic make-up can influence their susceptibility to HAPE and altitude sickness. This work will form the basis for further research by the 2014 APEX 4 expedition.

The two week-long trip is the fourth such research trip to Bolivia by students from Edinburgh, following the inception of APEX in 2000.

Expedition leader Shona Main, a fourth year medical student, said: “This expedition will provide an invaluable opportunity to improve our understanding of these potentially fatal conditions. It will also help us to improve management of the sickest and most vulnerable patients in intensive care units around the world.”

APEX founder Dr Kenneth Baillie, who led a previous trip to Bolivia, said: “It is a privilege to work with such a driven and inspiring group of students. The research they have planned at high altitude will help us to understand why patients' lungs fill up with fluid during critical illness back home at sea level. Ultimately their research could lead to important advances in the ways we treat patients on life support with severe lung problems.”

For further information, please contact:

Ranald Leask, Press and PR Office
Tel +44 (0)131 651 4357 or +44 (0)7805 609264
Email ranald.leask@ed.ac.uk

Note to picture desks:

Attached to this e-mail is a photo of five members of the expedition. From left to right they are: Alistair Roche, Georgie Barber, Shona Main (expedition leader), Alexander Jackson and Calum Stannett.