

Active Acclimatization Expedition (ACX) is the biggest mountain research project in the history of Poland and first of its kind worldwide. The goal of the expedition is to research different models of acclimatization and its impact on human health and performance in extreme condition of high mountains. In February and March 2019 the ACX team journeys to Chile to perform pioneering research on active acclimatization at the volcanic slopes of Ojos del Salado.

There will be 40 participants in the expedition, among them experts in the fields of cardiology, anaesthesiology, genetics, biochemistry, physiology of sport and dietetics who are employed by Medical Universities, Academies of Physical Education and in the Polish Academy of Sciences. The team will be supported by the members of last year's Polish National Winter Expedition to K2 and members of MedExpeditions, who organized two scientific expeditions to the area in 2012 and 2015. ACX Expedition will also be supported by professional photographers and a filmmaker.

Ojos del Salado reaches 6893 meters of altitude, which makes it the highest volcano in the world and the second highest peak outside of Asia. While the mountain itself is not technically difficult to climb, the surrounding area makes it a challenge to organize the expedition and support the climbers. The volcano lies at the edge of the Atacama desert, which is considered the driest desert in the world. While one can encounter numerous streams and lakes there, most of them are very salty or saturated with minerals, which makes the water bitter or non-potable. The name of the mountain can be loosely translated as "The eyes of the salty mountain".

Extreme altitude, dry air, strong winds and high diurnal temperature variation are only some of the challenges facing the expedition members in their 3-week long venture. The medical research will have to be performed in the very same conditions. One of the most profound dangers that have to be taken into account is the acute mountain sickness. As the safety of the expedition members is of utmost importance, the first week of the expedition will be used to properly acclimatize in the beautiful surroundings of Nevado Tres Cruces National Park. The next step is to reach the main goal – setting up the camp and professional medical base at the slopes of Ojos del Salado above 5000 meters of altitude...