**Title and acronym of the project**

CLIMATE\_ADAPTATION. Genetic adaptations to climate in Arabidopsis thaliana

**Project logo**

**Thematic area**

**Funding Programme**

FP7-PEOPLE

**Implementation period**

2012-2016

**Coordinator**

University of Vienna (Austria)

**Countries involved**

Austria

**Source of information (link)**

<https://cordis.europa.eu/project/rcn/103375/reporting/en>

**Project overview**

Major goal in evolutionary biology is to clarify the basis of local adaptation. The limited mobility of plants may translate into particularly strong selection due to climate-mediated selection pressures.

Some of the earliest evidence for this comes from phenotypic clines with the environment. The overarching goal of this project was to identify loci and specific genetic variants that contribute to climatic adaptation in the model plant, Arabidopsis thaliana.

­­­­­

**Results**

The proposed research will identify the specific genetic variants – including previously not assayed rare single nucleotide polymorphisms and structural variants – that underlie adaptations to the environment in the model plant, Arabidopsis thaliana. These results will then be used as a starting point to examine the broader context of adaptation in the Arabidopsis gene interaction network as well as the specific evolutionary histories of a few of the most compelling candidates.

The results will clarify how quantitative traits evolve in response to climate, a necessary first step for accurately predicting responses to future climate change, and will inform research to produce sustainable crop varieties.