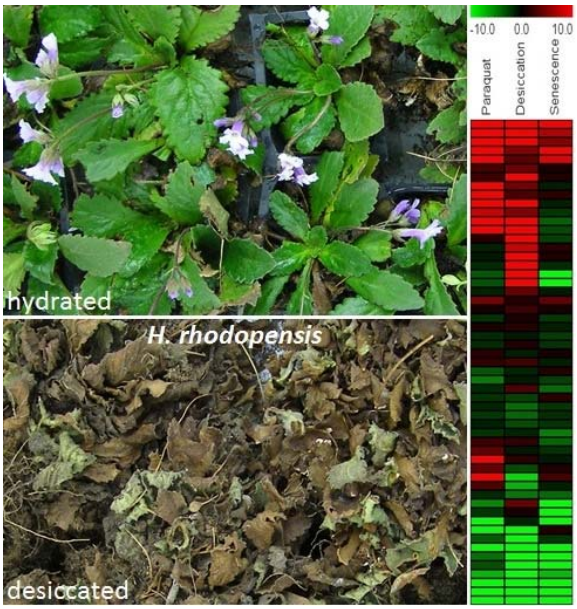
BULGARIAN-SWISS COOPERATION PROGRAMME
БЪЛГАРО-ШВЕЙЦАРСКА ПРОГРАМА ЗА СЪТРУДНИЧЕСТВО

Identification of genes that regulate plant tolerance to adverse abiotic factors and determine plant aging

Starting Date 01.11.2013

Duration 36 Months

Discipline Plant Biology



Main Goals

- To uncover molecular mechanisms that regulate abiotic stress tolerance in plants
- To identify genes that modulate plant lifespan
- To educate 3 PhD students.

Activities

Scientific research including a suite of genetic, genomics, molecular biology and physiology methods:

- Genetic, molecular, and physiological analysis of an *A. thaliana* mutant with extended lifespan
- Comparative transcriptomics and metabolomics of species with different levels of stress tolerance (*A. thaliana, H. rhodopensis, T. halophila*).
- Analysis of stress physiology and senescence in resurrection species

Expected results

- Identifying new genes involved in the regulation of plant abiotic stress tolerance
- Contributing to our understanding of the genetic mechanisms that determine plant ageing
- Educating three PhD researchers (one in Switzerland, two in Bulgaria)
- Establishing a long-lasting cooperation between the Swiss and the Bulgarian partners

Swiss Coordinator

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