Nordic *Arabidopsis* Network

http://www.Arabidopsis.org/info/2010_projects/Nordic.jsp
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Norway

The Norwegian Plant Functional Genomics Program (NARC) started in 2003 and is fully operative. NARC is 1 of 11 genomics technology platforms forming the national functional genomics program (FUGE). The plant platform includes service activities within transcriptional profiling (full genome arrays and custom designed arrays) and bioinformatics (Atle Bones, NTNU) genotyping and clone collection (Odd-Arne Rognli, UMB), *in situ* hybridization and yeast two-hybrid screening (Reidunn Aalen, UIO). Most of the activity involves *Arabidopsis thaliana*. Norway is a partner of the EU Plant Genomics network ERA-PG and hosted the Nordic *Arabidopsis* meeting 2004.

Arabidopsis Resources and Funding

- Norwegian *Arabidopsis* Research Centre (NARC): The Norwegian service facilities are open for all scientists at equal conditions. The program is coordinated by Atle M. Bones (NTNU) and information about the services can be found at www.narc.no or by request to narc@bio.ntnu.no .
- University of Oslo: *in situ* hybridization and yeast-two-hybrid analyses (http://www.imbv.uio.no/mol/groups/narc/)
- UMB: *Arabidospsis* transformation, T-DNA genotyping, seed collection: (www.umb.no/?viewID=2552)
- Research Council of Norway (www.forskningsradet.no): Functional Genomics in Norway (FUGE)- Funding

Sweden

The Umeå Plant Science Center (UPSC) is a center of experimental plant biology in Umeå. It was created in 1999 by moving plant groups from the Umeå University and Swedish University of Agricultural Sciences (Umeå) to the same building. UPSC groups have also received National Center of Excellence status and funding for functional genomics. Their activities are mainly concentrated in trees (hybrid poplar). However, *Arabidopsis* functional genomics is heavily utilized for the determination of the function of poplar genes that have a well-conserved counterpart in *Arabidopsis*. Research topics include; plant development, flower development and hormone physiology; photosynthesis and metabolism with a special interest for stress responses (low temperature in particular); ecophysiology studying C- and N- assimilation. The research groups are supported by technical platforms in genomics, proteomics, metabolomics, production of transgenic plants, microscopy. The UPSC is also a partner in the European CATMA-project.

Arabidopsis Resources and Funding

- UPSC (www.upsc.se/)
- Wallenberg Consortium North (WCN)- Funding (www.wcn.se/)

Finland

The Finnish groups involved in *Arabidopsis* research are concentrating on stress-physiology and functional genomics of plant stress responses, developmental and hormone biology, and in photosynthesis. They are using genomics, proteomics, and metabolomics to determine plant defense and adaptation to biotic and abiotic stresses and the functions of the proteins in chloroplast thylakoid membranes. *Arabidopsis* genomic information is also used in functional and comparative genomics of the lower plants as a template for the eurosids. Information is stored and made available at openSputnik- the comparative genomics platform. The outcrossing relative *Arabidopsis lyrata* is being used in studies of population genetics of adaptation to abiotic conditions. The eight chromosomes of the species differ from the *A. thaliana* genome mainly by a small number fusions and reciprocal translocations. The Finnish Plant Functional Genomics Project Program was created in

the spring of 2003 in order to increase collaboration in functional genomics between the participating groups. It is also member in the European plant functional genomics network ERA-PG.

Arabidopsis Resources and Funding

- openSputnik: A comparative genomics platform (www.opensputnik.org)
- The Finnish Project Program on Plant Genomics- Funding (www.honeybee.helsinki.fi/esgemo/pg/eng_index.htm)
- The Academy of Finland- Funding (www.aka.fi/index.asp?id=eb9a8e15a46244d989ac56c132e8d13a)

Denmark

In Denmark, a number of groups at The Veterinary and Agricultural University, Copenhagen University, Risø National Laboratory, Danish Institute of Agricultural Sciences and Aalborg University work on *Arabidopsis*. The research, which in most cases is funded by the national research councils, involves studies of several aspects of plant life. The activities are coordinated through the Plant Biotech Denmark-network (www.plant-biotech.dk).