

# The Netherlands

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## 2008 Highlights for The Netherlands

In the extension of the Dutch Genomics Programme CBSG2 that was awarded in 2007, Arabidopsis research is again an essential ingredient. This provides additional resources to the Arabidopsis community in The Netherlands.

Marcel Dicke received the prestigious SPINOZA prize among others for his combination of a molecular genetic approach with an ecological approach in which Arabidopsis is used as a model for other brassicaceous plants. In recent work from his lab, a 70-mer Arabidopsis oligo array was successfully used to determine global transcriptional changes in Brassica oleracea in response to insect feeding.

For the identification of binding sites of the floral organ identity transcription factors SEP3 and AP1, Gerco Angenent's group performed Chromatin Immunoprecipitation (ChIP) combined with deep sequencing. These ChIP-seq experiments yielded large numbers of binding sites for both proteins. The majority of the binding sites contain the consensus CArG binding site for MADS box transcription factors. The overlap in binding sites represents putative targets of the SEP3-AP1 dimer, controlling sepal and petal formation.

The Research prize of Wageningen University (Best publication of the university in the past 4 years) was awarded in 2007 to an Arabidopsis paper by Keurentjes et al. in Nature Genetics describing a global analysis of QTL for metabolites using natural variation.

Ben Scheres' group published two papers in the same September 2007 issue of Nature, one of them presenting evidence for the existence of a transcription factor gradient

with dosage-dependent output and the other establishing a new framework for computational analysis of hormone transport in growing tissues.

Together with Remko Offringa from Leiden University and colleagues from Austria, Germany and the US, Dolf Weijers of Wageningen University published in the September 2007 issue of Cell evidence that reversible phosphorylation controls polar sorting of PIN proteins.

Guido van den Ackerveken's PhD student Mireille Van Damme won the Leverhulme Trust Technology Transfer Award 2007 (70,000 euros) which awards particularly successful technology transfers between universities and private companies.

## Major funding sources for Arabidopsis functional genomics:

- Netherlands Organization for Scientific Research ([www.nwo.nl](http://www.nwo.nl))
- The Netherlands Genomics Initiative ([www.genomics.nl](http://www.genomics.nl))
- The Netherlands Plant Genomics Network ([www.cbsg.nl](http://www.cbsg.nl))
- Foundation for Technology funded by Ministries of Economic Affairs and Education ([www.stw.nl](http://www.stw.nl))
- ERA-PG: [www.erapg.org/](http://www.erapg.org/)
- Human Frontiers Science Program (<http://www.hfsp.org/>)
- EC Framework 7 RTN
- EMBO fellowships (<http://www.embo.org/fellowships/index.html>)