



# Press Release – Science

Ghent, Belgium – 21 June 2006

## ***European Commission earmarks €12 million for plant growth research***

**Ghent, Belgium – Plants are invaluable sources of food, medicine, renewable materials and energy. But we still know relatively little about the biological processes that make them grow. The European Commission is devoting €12 million to AGRON-OMICS, a plant research consortium spearheaded by Pierre Hilson and Dirk Inzé of the Flanders Interuniversity Institute for Biotechnology (VIB) and Ghent University. The goal of this 5-year initiative led in collaboration with other top European research institutes is to understand the network of biological processes involved in leaf growth.**

### **Plants: crucial but still poorly understood**

It would be hard to overestimate the importance of plants in our daily life. They provide us with food, medicine, and renewable sources of materials and energy. It's therefore sobering to realize that, in comparison to cancer for example, we still know very little about the mechanisms involved in plant growth. Although key factors have been identified, researchers do not yet understand how their action is orchestrated, nor how the growth process is coordinated across the successive levels of organization: from molecules, to cells, organs and finally entire organisms. In particular, leaves are exquisite solar-driven molecular machines for carbon assimilation and essential determinants of ecosystem productivity. Given their crucial role for mankind, we must improve our knowledge about the biology of plants.

### **AGRON-OMICS**

But, times are changing and novel technologies are now being developed to systematically study complex biological processes. **Pierre Hilson, Dirk Inzé** and their colleagues in the **Department of Plant Systems Biology**, in collaboration with nine other top European research institutes, have set out to perform an in-depth study of leaf growth in the model plant species *Arabidopsis thaliana*. To support their efforts, these scientists launched an initiative called **AGRON-OMICS (Arabidopsis GROWth Network integrating OMICS technologies)**. In the coming five years, this network of major European players in plant biology will perform experiments to identify the molecular components controlling growth and build mathematical models to explain how these components interact.

The significance of the initiative also caught the attention of the European Commission, which is providing €12 million toward its success. With the exception of the *Arabidopsis* genome initiative, this is arguably the largest grant ever awarded in this area of research, and a clear indication of the social importance of a deep understanding of life processes in plants.

### **Attachment**

A brief description of AGRON-OMICS, including a list of the partners, is attached.

**Note to the Editor:**

VIB, the Flanders Interuniversity Institute for Biotechnology, is a research institute where 850 scientists conduct gene technological research in a number of life-science domains, such as human health care and plant systems biology. Through a joint venture with four Flemish universities (Ghent University, the K.U.Leuven, the University of Antwerp, and the Vrije Universiteit Brussel) and a solid funding program for strategic basic research, VIB unites the forces of nine university science departments in a single institute. Through its technology transfer activities, VIB strives to convert the results of their research into products for the benefit of consumers and patients. VIB also distributes scientifically substantiated information about all aspects of biotechnology to a broad public.

**For more information**

Please contact VIB's Communication service:

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Additional documentation is available via the project website: [www.agron-omics.eu](http://www.agron-omics.eu)

**Pierre Hilson** is the head of the Functional Genomics Division in the Department of Plant Systems Biology under the direction of **Dirk Inzé** (for more info, see: [www.vib.be/Research/EN/Research+Departments/Department+of+Plant+Systems+Biology/Pierre+Hilson](http://www.vib.be/Research/EN/Research+Departments/Department+of+Plant+Systems+Biology/Pierre+Hilson), [www.psb.ugent.be](http://www.psb.ugent.be))



## Attachment

### AGRON-OMICS

#### 'Arabidopsis GROwth Network integrating OMICS technologies'

The mission of AGRON-OMICS, a multidisciplinary research program focusing on the plant model *Arabidopsis thaliana*, is to enhance the understanding of plant growth and to enable system-level studies. The project will create knowledge for industrial applications and will yield data, tools, resources and novel technologies for use by the European research community.

The consortium is structured according to two main axes: (1) the biological functional modules at the core of the research activities of the laboratories involved that cover all the main known molecular pathways involved in the regulation and implementation of leaf growth; (2) the technology platforms shared across the partners that were chosen to record variables describing *Arabidopsis* growth at all relevant levels, from the macroscopic analysis of organ size and shape, to the in-depth analysis of molecular cell components.

The key concept driving AGRON-OMICS is the generation of multiple data types derived from growing leaves and their delivery into a framework in which these data can be shared, compared, integrated and analyzed.

### PARTNERS IN THE AGRON-OMICS PROJECT

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