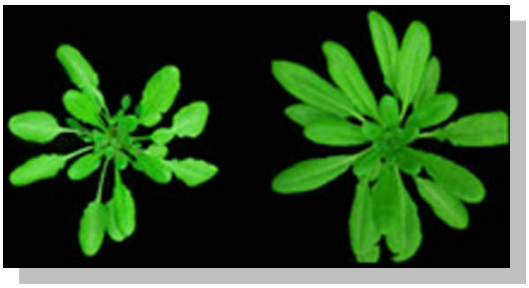
SOPARTEC

Technology Transfer Company of the Université catholique de Louvain

Sopartec, the technology transfer company of the Université catholique de Louvain (UCL), presents

A NEW METHOD FOR INCREASING THE SIZE OF PLANTS OR PLANT ORGANS



Wild type (left) and modified plant (right)

Technology Keywords

- Plant breeding
- Crop yield
- Abiotic stress response

Technology Market : Agriculture – Plant improvement

Yield improvement is a major concern considering the needs of expanding human population. Plant-breeding and seed companies are therefore looking for new plant varieties to meet these growing needs.

The UCL invention

Researchers at the UCL have found that expressing a particular enzyme gene in an evolutionary distant species could produce an increase in cell size and hence in organ size. Combined with appropriate transcription promoters, this new methodology allows to increase the size of any plant organ.

This technique is :

- Simple – involves introduction of DNA that codes a protein naturally occurring in all plant species;
- Effective – enhances the plant size significantly;
- Potent – possesses a wide range of applications.

Applications :

- Longer roots : better acquisition of nutrients and water from the soil, or better fixation in the soil and resistance to uprooting
- Longer stems : taller plants/stems for food or feed, or for extraction of chemicals produced in stems (e.g., sugar cane)
- Larger leaves : increased photosynthesis and thus better growth and yield of various organs, or better yield when leaves are directly consumed (food and feed), or for extraction of chemicals produced in leaves
- Larger leaves/flowers for ornamental plants
- Larger fruits/seeds for food and feed production
- Larger organs for use as raw material for bioconversion

Technology Status

This work is the subject of a patent application : EP patent application filed on 17/09/2010.
(internal file reference number : UCL-009)

Sopartec would like to talk to companies interested in developing and commercializing this invention.

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