Identification of novel regulatory modules in dicot plants using expression data and comparative genomics



Klaas Vandepoele, Tineke Casneuf and Yves Van de Peer

Bioinformatics and Evolutionary Genomics Division, Department of Plant Systems Biology, VIB-Ghent University, Technologiepark 927, B-9052 Gent, Belgium. <u>E-mail:</u> Klaas.Vandepoele@psb.ugent.be

Introduction

Transcriptional regulation plays an important role in the control of many biological processes. Transcription factor binding sites (TFBS) are the functional elements that determine transcriptional activity and are organized into separable *cis*-regulatory modules, each defining the cooperation of several transcription factors required for a specific spatio-temporal expression pattern. Consequently, the discovery of novel TFBS in promoter sequences is an important step to improve our understanding of gene regulation.



Conclusions

These results create a starting point to unravel regulatory networks in plants and to study the regulation of biological processes from a systems biology point of view.