Universidad de Alcalá

DEVELOPMENT AND APPLICATION OF MOLECULAR MARKETS IN PLANTS

Code
748

MARMOL

RESEARCH AREA

Experimental Sciences
Health Sciences

COORDINATOR

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KEYWORDS

Molecular markers, Cereals, Root System Architecture (RSA), FISH, PCRq, Plant Genetic Resources

AIM

- Agrifood Seed companies

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Marcadores moleculares
Genética de plantas

ABOUT US

The objective of the group is the development of DNA molecular markers for identify those that are useful in studies to evaluate genetic diversity, genome evolution and plant breeding. Genetic diversity studies try to quantify the intraspecific variability present between cultivated species varieties or between natural populations of wild species. The diversity found among species of the same genus is used as a phylogenetic tool. The common goal in these studies are to provide information that will contribute both to a better use of plant genetic resources in plant breeding as to define the most appropriate strategies for the conservation of these resources.

RESEARCH LINES

- Use of molecular markers in the study of plant genetic diversity
- Study of genomic evolution in the Avena genus using cytogenetic methodologies
- Development of molecular markers to identify pathogen resistance genes in oats
- Phenotyping and genetic control of the architecture of the plant root system (RSA)

OFFERED SERVICES

- Application of experimental methods of DNA markers (RFLPs, SSRs, ISSRs, SNPs, etc) in plants
- Application of softwares for the analysis of polymorphism in natural populations or commercial varieties of plants
- Phenotyping of root architecture
- Gene expression studies in plants

MARKETABLE RESULTS