

# **AN R SOFTWARE ENVIRONMENT FOR ANALYSIS OF OLIGONUCLEOTIDE ARRAYS DATA**

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We introduce a complete package of functions dedicated to the analysis of the data contained in Affymetrix files, a commercially available solution for oligonucleotides arrays.

The package incorporates different published methods for calculating expression based on multiple probes pairs directly based on CEL files. The aim is to provide a flexible environment for combining functions that perform different aspects of the data analysis. An easy access to statistical and graphical facilities is guaranteed by the powerful R machinery.

While the present system does not pretend to compete with some of the dedicated software packages in terms of speed of execution or in data warehousing features, it is thought to have its strength in flexibility, adaptability, and accessibility.

The R software is a GNU project. It is generally compatible with the S-PLUS language. The present package was released under a license ensuring the availability of the source and its use for non-profit organizations.

The use of the package is demonstrated by examples. They range from original observation of data features to the use of the newest probe pair processing techniques and to the implementation of a complete and automated processing of data files. Possibilities to link the package to other software are also suggested.