The european molecular biology linked original resources (TEMBLOR)

Results in Brief

New database tool for microarray researchers

Many achievements in molecular biology research have been made across Europe, yet up until this research there had not existed a public repository from which this data can be shared. ArrayExpress is a database which uses Oracle technology to allow scientists access to microarray data, that is, snapshots of gene expression levels at a genomic scale.

HEALTH

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The EU-led TEMBLOR project created links between original resources in order to facilitate molecular biology research being conducted across Europe. Its aim was to combine the different strengths of European groups working on various aspects of classification and characterisation of genes and proteins so as to improve the interoperability of biological databases.

As part of this project, ArrayExpress was designed as a public repository where microarray-based gene expression data can be accessed. Microarray technology makes use of sequence resources created by genome projects, to answer the question 'What genes are expressed in a particular type of organism, at a particular time and under particular conditions?' Microarrays are considered to be one of the most important breakthroughs to be made in

experimental life sciences.

ArrayExpress technology consists of the database itself, data loader and data access interface. It runs on Oracle. However, very few Oracle special features are used therefore porting to other DBMS platforms is possible.

The mapping used involves classes being mapped to tables one-to-one; furthermore, each object can be distributed across several tables according to the inheritance hierarchy. Some local modifications of the object model were done in order to improve performance of common queries. Further information is available at http://www.ebi.ac.uk/arrayexpress

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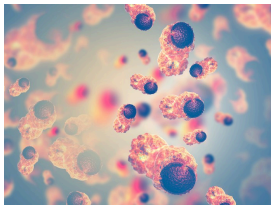

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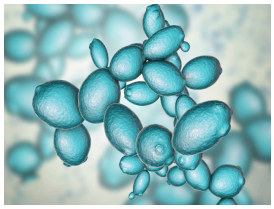

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Project Information

TEMBLOR

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