



Microarray Databases I

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Abstract

Microarray analyses, in particular for pancreatic cancer and pancreatitis, have been extensively performed. Today, these data are so extensive that meta-analyses of microarray experiments for pancreatic diseases have begun to emerge. Thus, there is a large amount of data, derived from this methodology, which can help curious individuals develop, for instance, novel markers and assays of pancreatic diseases based upon the data deposited in these databases without the great expenses of generating the initial microarray experiment. Following, we provide a few sites that together constitute the first part of a small series of 'Pancreatology and the Web' articles on this topic.

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Stanford Microarray Database: Source:

<http://smd-www.stanford.edu/cgi-bin/source/sourceSearch>

This database offers minable and retrievable data, containing a large amount of information that can be used for gene annotation. More importantly, however, this site includes links to array data in cancers and other conditions. It is fast to use and its graphical interface allows researchers to quickly understand whether a gene is up- or downregulated. Clicking on the graphic for a particular gene brings up the other members of genes that cluster with the query.

National Cancer Institute: Center for Cancer Research:

<http://nciarray.nci.nih.gov/>

This site offers bioinformatics tools to manage, access and analyze array data generated by the NCI/CCR Center. In addition, there is a link to an outstanding site containing datamining tools for analyzing microarrays: <http://discover.nci.nih.gov/tools.jsp>.

**Y.F. Leung's Functional Genomics: Microarray Database:
http://ihome.cuhk.edu.hk/~b400559/arraysoft_public.html**

The public microarray database is a repository of microarray data. It is often accompanied with some data analysis and/or visualization tools. The gene expression database contains expression data collected by genomics technologies other than microarray, for example, serial analysis of gene expression and expressed sequence tag sequencing. In addition, the site provides wonderful tutorials on the technology and links to products, protocols and information.

Arrayexpress: [http://www.ebi.ac.uk/microarray-as/aer/?#ae-main\[0\]](http://www.ebi.ac.uk/microarray-as/aer/?#ae-main[0])

This site is a public repository for microarray data, which stores data compliant with Minimum Information about a Microarray Experiment in accordance with recommendations from the Microarray and Gene Expression Data Society. The 'ArrayExpress Data Warehouse' consists of gene-indexed expression profiles from a curated subset of experiments in the repository.

All these databases are 'intuitive' in their operation. Thus it is easy to find useful information just by pressing links and buttons. As you play with these databases, you will gain a better understanding of both cellular and pathological processes as well as use the information offered by these resources to answer factual doubts or even better: to plan an experiment!