

A Beginner's Guide

Microarray

Gene Expression Data Analysis

Microarray technology is arguably the most important recent breakthrough in molecular biology. It enables researchers to obtain snapshots of gene expression for all the genes in a genome in a single experiment. Microarray experiments generate massive amounts of data that can be analysed to extract new knowledge about the underlying biological processes.

This guide covers aspects of designing microarray experiments and analysing the data generated, and includes information on some of the tools that are available from non-commercial sources. Concepts and principles underpinning gene expression analysis are emphasised, and wherever possible the mathematics has been simplified. The guide is intended for use by graduates and researchers in bioinformatics and the life sciences and is also suitable for statisticians who are interested in the approaches currently used to study gene expression.

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