Genome-wide microarray analysis

Typically relying on data from microarrays or high throughput sequencing, it can determine what genes or transcript isoforms are enriched in a particular cell or tissue type, condition, disease or phenotype.

A microarray is a multiplex lab-on-a-chip. It is a 2D array on a solid substrate (usually a glass slide or silicon thin-film cell) that assays large amounts of biological material using high-throughput screening miniaturized, multiplexed and parallel processing and detection methods. The concept and methodology of microarrays was first introduced and illustrated in antibody microarrays (also referred to as antibody matrix) by Tse Wen Chang in 1983 in a scientific publication and a series of patents.

The "gene chip" industry started to grow significantly after the 1995 Science Paper by the Ron Davis and Pat Brown labs at Stanford University.

With the establishment of companies, such as Affymetrix, Agilent, Applied Microarrays, Arrayit, Illumina, and others, the technology of DNA microarrays has become the most sophisticated and the most widely used, while the use of protein, peptide and carbohydrate microarrays are expanding.

From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=genome-wide_microarray_analysis

Last update: 2024/06/07 02:49



1/1