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An Overview of Statistical Analysis of DNA Microarray Data

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Abstract: Microarray techniques have been widely used to monitor gene expression in many areas of biomedical research. They have been widely used for tumor diagnosis and classification, prediction of prognoses and treatment, and understanding of molecular mechanisms, biochemical pathways, and gene networks. Statistical methods are vital for these scientific endeavors. In this talk, I will review recent developments of statistical methods for analyzing data from microarray experiments. Emphasis has been given to normalization of expression from multiple arrays, selecting significantly differentially expressed genes, and tumor classifications.

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