Latest Developments in DNA Chip Technologies. (C07-galbraith213310-Oral)

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Abstract:

DNA immobilized in microarray format has provided a popular and convenient means for the high throughput analysis of gene expression. However, microarrays are subject to a variety of drawbacks, the most important of which relate to specificity, sensitivity, and reproducibility. Cross hybridization occurring between related sequences and motifs limits microarray specificity. Issues of sensitivity and reproducibility raise questions as to the numbers of replications required for identification of statistically significant results. Finally, conventional microarrays do not provide an absolute measure of RNA concentrations within cells and provide, at best, a limited description of gene expression. This presentation addresses means to alleviate these problems, and thereby further extend microarray methodologies to address important and emerging issues in plant biology.

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