

# Statistical Microarray Data Analysis

國立台灣大學資訊所

**Course:** 生物資訊與計算分子生物學

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# Statistical Microarray Data Analysis

- **Data Preprocessing for cDNA Microarray and Affymetrix GeneChip**
  - Image Analysis, Quality Control, Normalization
  - Gene Filtering, Missing Values Imputation
- **Finding Differential Expressed Genes**
  - Gene Selection, Significance Analysis
- **Visualization, Clustering and Classification**
- **Experimental Design**
- **Time Course Microarray Experiments**
- **Gene Regulatory Networks/Pathway**
- **Software**
- **Annotations/Databases,**
  - Data Standards, Storage and Sharing
- **Comparisons, Sample Size, Dye Swap, Replicates, ...**



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