Lecture 15: Bioinformatics Sayan Mukherjee

Description

We discuss the machine learning challenges in bioinformatics. Some basic molecular biology is described. Some common bioinformatics problems are briefly discussed. The use of classification algorithms in the analysis of DNA Microarray data is discussed at length.

Suggested Reading

- T. Golub et al Molecular Classification of Cancer: Class Discovery and Class Prediction by Gene Expression. Science 1999.
- S. Mukherjee et al Support Vector Machine Classification of Microarray Data . AI Memo 1999.
- S. Ramaswamy et al Multiclass Cancer Diagnosis Using Tumor Gene Expression Signatures . PNAS 2001.