

Discussion Notes on

Gene expression informatics – it's all in your mine

By Douglas Bassett, et alia

Presented by Nancy Baker

2003-11-25

Our discussion centered on the data challenges of microarray experiments. Two members of the UNC Bioinformatics group joined us and were able to give us some insight into the issues they encounter here at the university.

Standards are an important issue for microarray data storage and analysis. This area is problematic because adopting and enforcing standards might impede the development of new technology. Some guidelines, however, are emerging as the FDA has begun to regulate submission of microarray data for new drug applications. Here at UNC, the core lab is MIAME compliant while the Perou lab is not. The standards address data storage minimum requirements.

The reason standards are so important is that researchers want to combine data across experiments, even across labs. We heard from our visitors about a UNC Cystic Fibrosis related database. Researchers submit data, but they must comply with the standards. Those who submit data have the rights to retrieve data. Because data was submitted under rigorous guidelines, it can be compared with some accuracy.

These standards don't regulate public databases. Comparing data retrieved from them can be difficult. The potential for combining data is great, but the lack of standards makes it problematic.