Date: September 10, 2002
Presenter: John MacMullen
Topic: Discovery support systems for biomedical research and the fragmentation of knowledge in science.
Slides: http://ils.unc.edu/bioinfo/docs/20020910-MacMullen.ppt
Reading(s):
  o Swanson, Don R. and Smalheiser, Neil E. (1997). An interactive system for finding complementary literatures: A stimulus to scientific discovery. Artificial Intelligence, 91(2), 183-202.

Summary:
Fragmentation of literature due to specialization is a growing problem in science, particularly in biomedicine. Swanson & Smalheiser have developed and successfully applied semi-automated methods to discover implicit connections, which they call "undiscovered public knowledge", in fragmented ("complementary but disjoint") literatures. This article gives a detailed exposition of their method, and references to their experimental articles.

Questions raised in the seminar included:
  o Are there ways to further automate their process to remove some of the human labor and judgments?
  o What might be the result of their experiments now, given the growth and accessibility of MEDLINE? (They were only able to search a subset of MEDLINE for the early experiments, and only using the article title field.)
  o What are some other approaches that could be developed to integrate and mine the biomedical literature?