# Homework One: Schema Design for Biomedical Data Warehouse

## Description

Biomedical data are being generated in an explosive rate, ranging from clinical test results to microarray gene expression profiles. The scale and complexity of these datasets give rise to substantial challenges in data management and analysis. Data warehouse and on-line analytical processing (OLAP) technologies have been developed for business applications. It is highly desirable that the these technologies can be applied to biomedical data integration and mining. The major difficulty lies in capturing and modeling diverse biological objects and their complex relationships.

There have been various logical data models proposed to specify biomedical data in databases, including relational data models, object-oriented data models, and multidimensional data models. However, it is not clear yet which approach is the best for modeling and analyzing data in biomedical data warehouses.

## Problem

You are required to design a logical data model for the biomedical data described in the given paper entitled "Modeling clinical and genomic data for biomedical data warehouseing and mining". Justify your approach. Your schema design is the first step of the project 1 which will be given soon.

## Submitting Materials

A comprehensive report should be submitted.

## Presentation

You will be asked to present your idea in class.