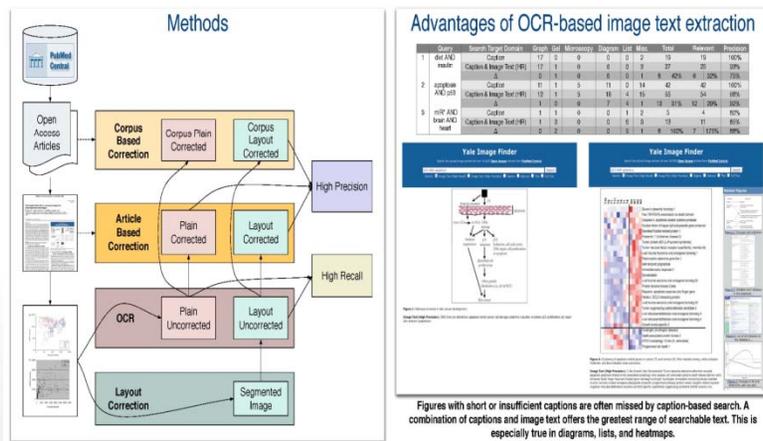


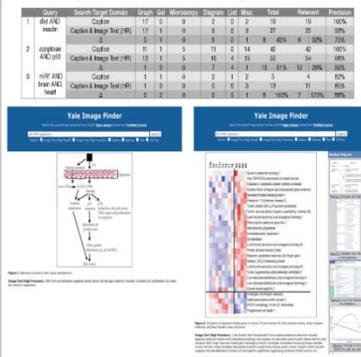
# Advanced Algorithms and User Interfaces for Personalized Data Mining of Biomedical Images and Literature

Modeling and Simulation Group

Computational Sciences & Engineering Division



## Advantages of OCR-based image text extraction



## Problem Statement:

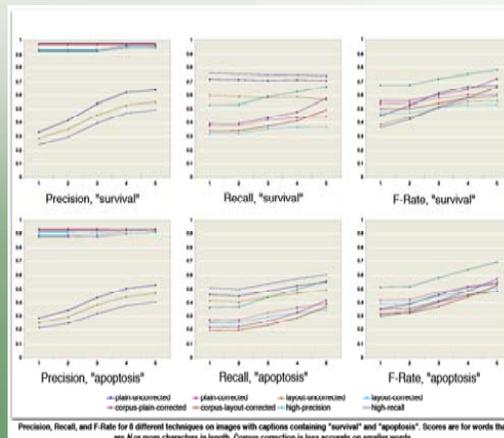
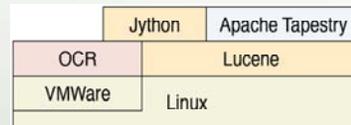
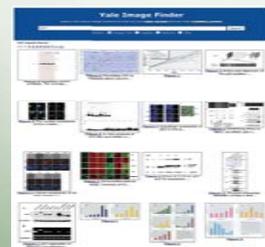
- With the exploding size of biomedical literature and images published to date, finding biomedical knowledge relevant to one's research interests and professional practice in a timely manner is becoming increasingly challenging.

## Technical Approach:

- We are designing and implementing intelligent query- and behavior-based algorithms and user-friendly interfaces to facilitate biomedical knowledge discovery through accurate and timely access, selection, delivery, and personalized recommendations. The main research methodology underlying this project includes artificial intelligence, automated tagging, and human computer interaction.

## Benefit:

- This project is developing intelligent algorithms and introducing smart and friendly user interfaces to facilitate biomedical image and literature access, selection, organization, and presentation. The aims include:
  - Intelligent algorithms for biomedical image and literature retrieval
  - User-friendly interfaces to facilitate biomedical image and literature search and navigation
  - New avenues for promoting biomedical knowledge access and discovery



Point of Contact:

Songhua Xu  
(865) 574-9087  
xus1@ornl.gov

