Internship Report

2015 summer

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My Internship

- Stanford Translational Medicine Laboratory
- Project: Predicting Adverse Drug Reactions Using PubChem BioAssay and Compound Data
- Work with assistance of other lab members (June-July)
About the Lab

- Developing new biological platform.
- Discovering novel diagnostics.
- Seeking healthcare business intelligence solutions based on big data.
About the Project

- Pouliot’s method: using BioAssay to predict drug adverse events.

- Improving the model: combining both chemical structure and BioAssay to predict drug adverse events.
Work Description (data collection)

- Download the data from public databases
- Clean the data and upload the files to SQL database
- Do data mapping in SQL or using R to extract data
Work Description (data analysis)

- Reproducing Pouliot’s BioAssay efficacy-based drug adverse event prediction method
- Modelling through the combination of both BioAssay and chemical structure dataset
- Comparing the two methods’ predictive performance
Techniques

- **Programming Language:**
  - SQL, R (already knew)

- **Command language:**
  - bash (Unix shell) - (newly learned)

- **Software:**
  - FileZilla (newly learned)
Thank you