



A hierarchical anatomical classification schema for prediction of phenotypic side effects



SIDER 4.1 : Side Effect Resource

SIDER contains information on marketed medicines and their recorded adverse drug reactions. The information is extracted from public documents and package inserts. The available information include side effect frequency, drug and side effect classifications as well as links to further information, for example drug–target relations.

Search for drugs or side effects :

type 3 or more characters...

Database statistics

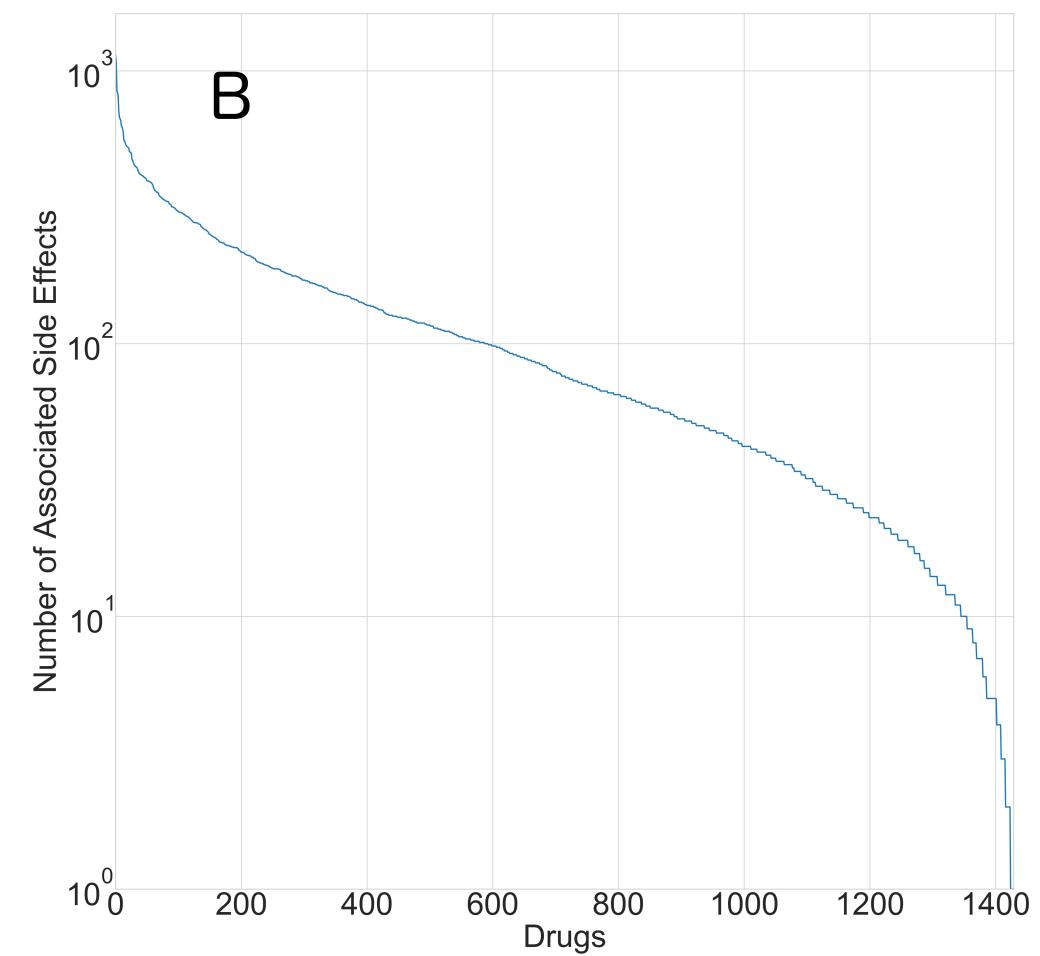
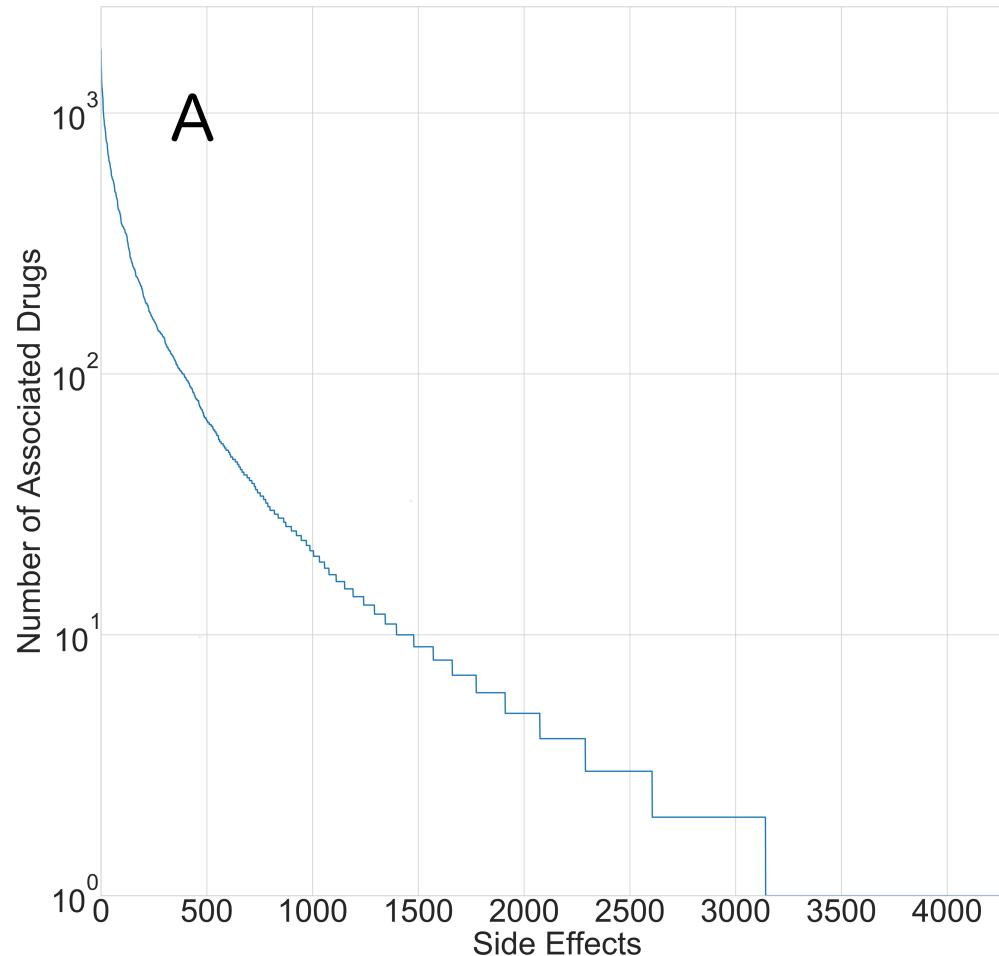
Number of drugs and side effects

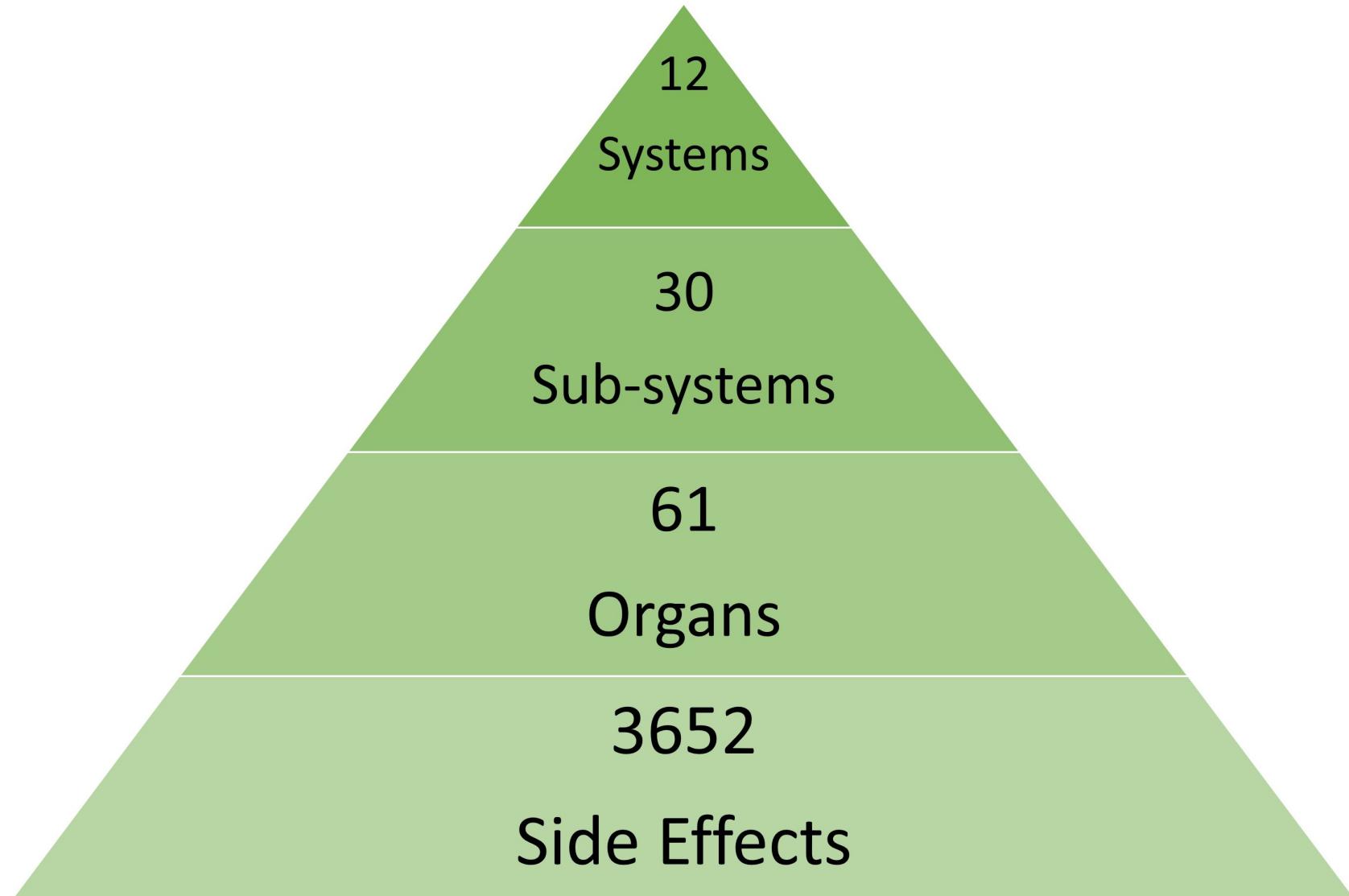
# of SE	# of drugs	# of drug-SE pairs	Pairs with frequency information
5868	1430	139756	39.9%

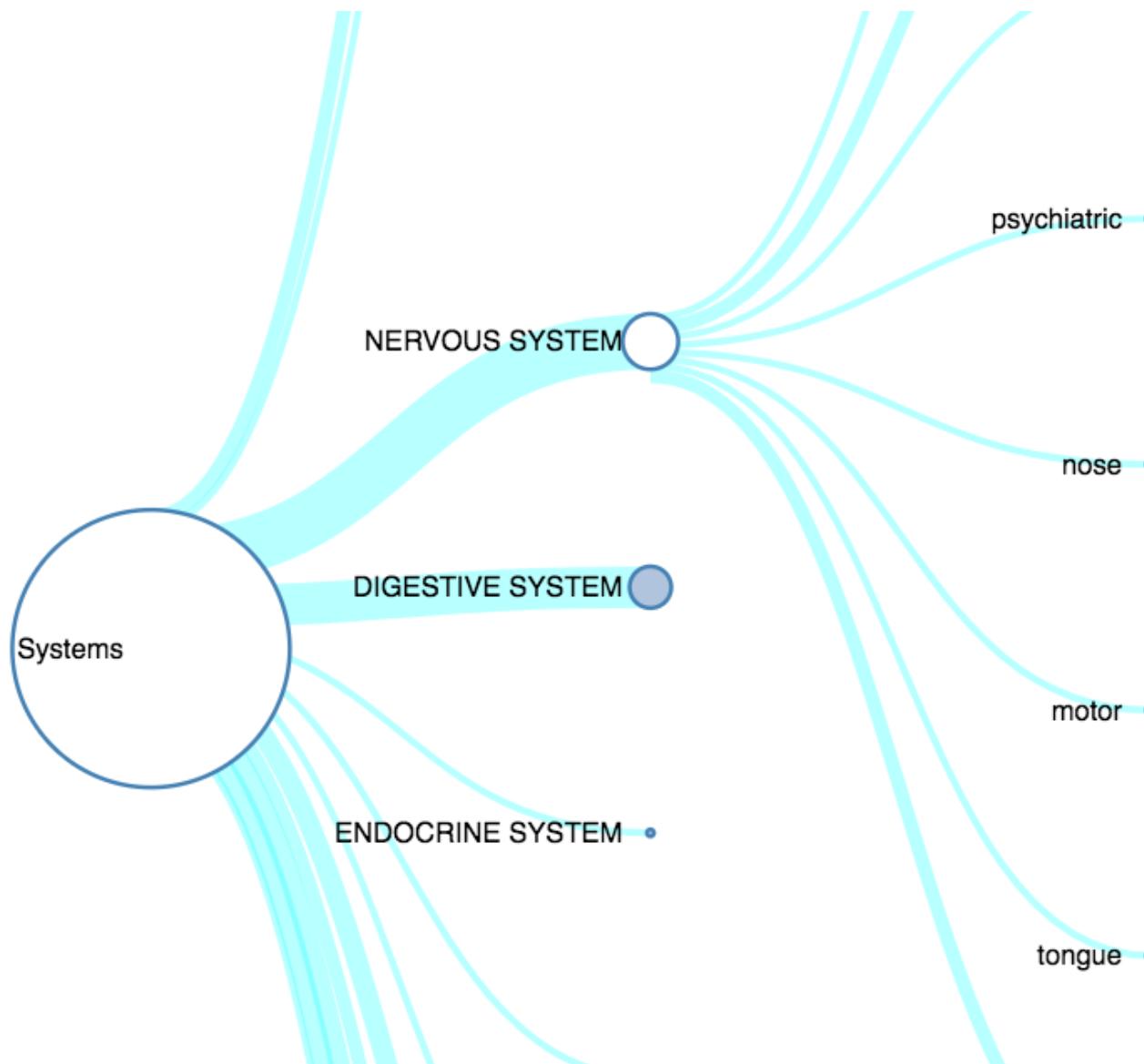
Number of drug-side effect pairs in different frequency ranges

frequent (with event data)	infrequent (with event data)	rare (with event data)	postmarketing	total

SIDER- Side Effect Resource

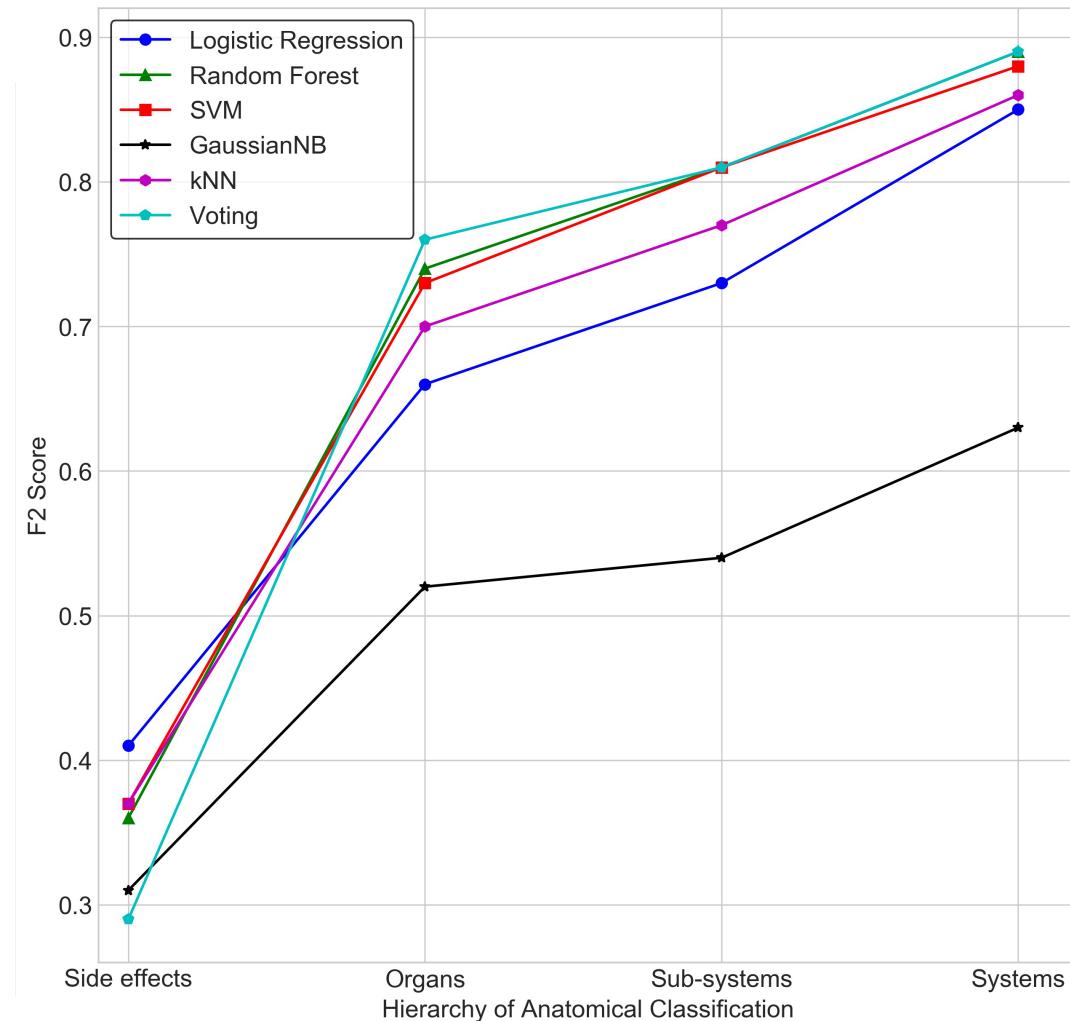
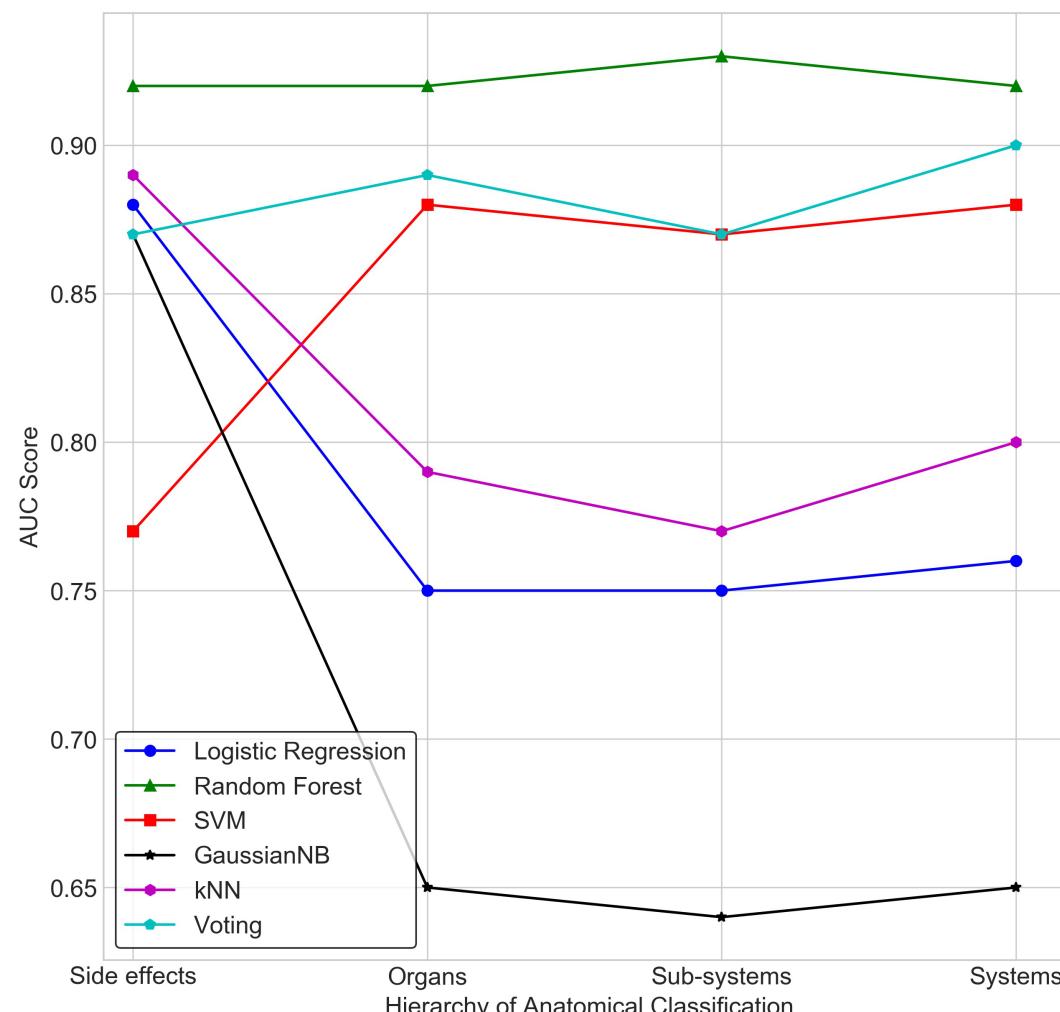


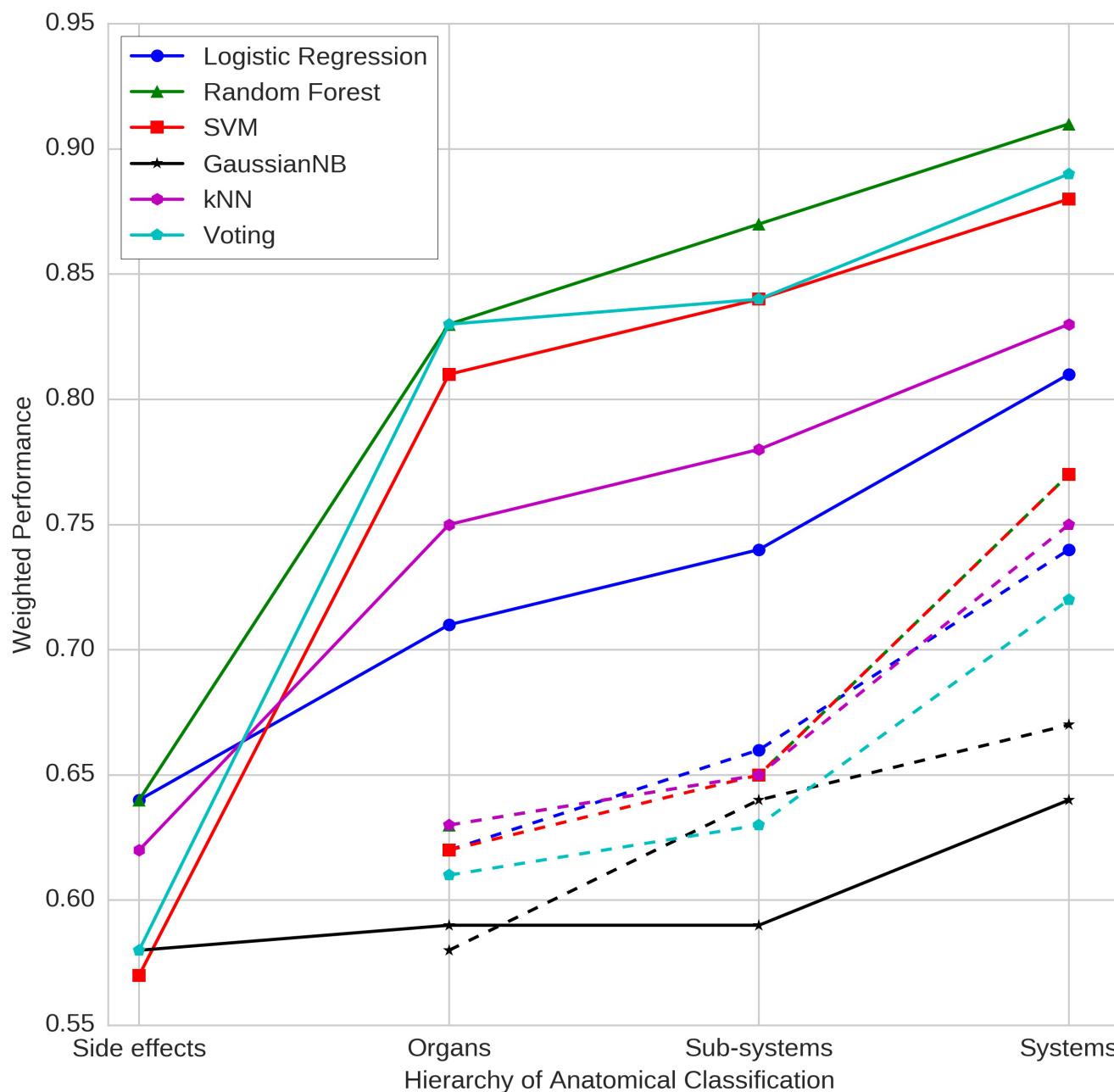


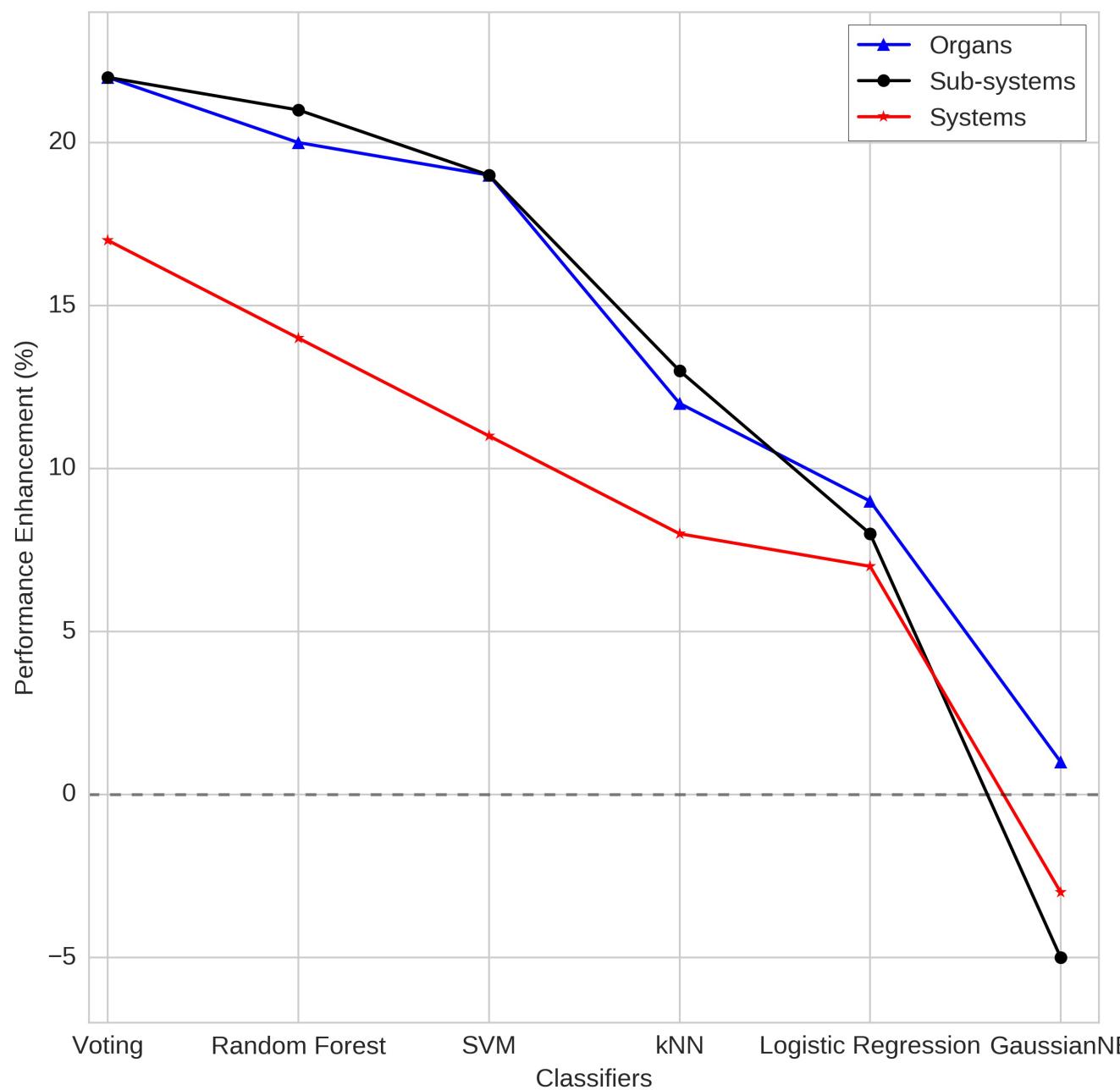


<http://cosylab.iiitd.edu.in/ADRhac.html>

Weighted Performance?









advanced search

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RESEARCH ARTICLE

A hierarchical anatomical classification schema for prediction of phenotypic side effects

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Abstract

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Abstract

Prediction of adverse drug reactions is an important problem in drug discovery endeavors which can be addressed with data-driven strategies. SIDER is one of the most reliable and frequently used datasets for identification of key features as well as building machine learning models for side effects prediction. The inherently unbalanced nature of this data presents with a difficult multi-label multi-class problem towards prediction of drug side effects. We highlight the intrinsic issue with SIDER data and methodological flaws in relying on performance measures such as AUC while attempting to predict side effects. We argue for the use of metrics that are robust to class imbalance for evaluation of classifiers. Importantly, we present a 'hierarchical

Subject Areas

[Adverse reactions](#)[Machine learning](#)



Thank You