Drug Sensitivity Scoring; Past, Present and Future

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Quantifying drug response is crucial for measuring drug vulnerabilities, hence plays an important role in drug discovery. Most of the time, different features of the dose-response curve (e.g. the end point viability or toxicity measurements) are used to define the drug's aptitude. In this talk, I will present state-of-the-art methods to infer drug response from high-throughput drug-screening data. In addition, I will demonstrate the mathematics behind understanding drug behavior. Finally, I will talk about the challenges that result in variabilities and inconsistencies between different cancer drug screenings.

References:

1) https://dtp.cancer.gov/discovery_development/nci-60/methodology.htm

2) https://www.ncbi.nlm.nih.gov/pubmed/24898935

3) https://www.nature.com/articles/nmeth.3853