

Statistics and Data Science Seminar

Some statistical considerations in High-Throughput-Screening data evaluations in drug discovery

Dr. Viswanath Devanarayan (AbbVie)

Abstract: In High-Throughput-Screening efforts during the drug discovery process, hundreds of thousands of compounds are tested to identify promising drug candidates that modulate specific gene targets. These drug candidates may ultimately serve as therapeutic candidates for some disease indications of interest. Critical decisions related to compound selection and prioritization are made based on fairly limited data, and therefore rely greatly on data quality and reproducibility. Standard statistical metrics and methods in textbooks do not directly apply for these evaluations. This presentation will provide an overview of some statistical measures that were developed specifically for this application. The content of this presentation will be very practical and data-driven, and hence will be suitable for a broad audience.

Wednesday, March 29 at 4:00 PM in SEO 636