DSICCR Tuesday Seminar Series

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Advancing drug discovery and repurposing with machine learning

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Drug development has been very costly and challenging. There are a number of important aspects on drug efficacy, drug toxicity, drug interactions that need to be jointly considered in order to improve the success rate of drug development. Despite the existence of massive and heterogenous data, it is a nontrivial task to make use of them to address the challenges mentioned above. Imbalanceness of experimental data, fragmentation of clinical features, as well as incompleteness of biological knowledge further contribute to the difficulties of drug discovery and repurposing research. We are proposing machine learning strategies to synthesize weak signals to assemble stronger evidences by considering the relationships between drug and target, as well as their own characteristics in a joint framework to make predictions for drug screening and efficacy analysis.

Tuesday, February 22nd, 2022. 12p – 1p. Webcast

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