

## *Graduate Mathematics Seminar*

### Modeling and Simulation in Drug Development

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**Abstract:** Modeling and simulation also known as model-informed drug discovery and development have become instrumental in streamlining drug development process. It allows to integrate knowledges from one phase to the next, and from one indication to the next, both in terms of successes and failures. Modeling and simulation integrate both computer-aided mathematical simulation and biological sciences. It uses pre-clinical and clinical data, along with published industry data to elucidate the relationships between drug exposure, drug response, and patient outcomes. In this talk we will survey the benefit of model-informed drug discovery and development across different phases of drug development and showcase how it was used to optimize both dosing regimen and clinical trial.

*When:* Monday, March 1, 2021, 6:00 – 7:00 pm

*Where:* Zoom