DREXEL UNIVERSITY
Materials Science and Engineering
College of Engineering

Department of Materials Science and Engineering,

PhD Candidacy Examination

Date & Time: March 12th , 2021 at 3:00 pm – 5:00 pm
Where: https://drexel.zoom.us/j/87888269214

Title: The Role of Polymeric Carriers in The Formulation of Amorphous Solid Dispersion (ASD)

Name: Phuong Bui
Advisor: Antonios Zavaliangos

Abstract

Poor water solubility of many drugs has emerged as one of the biggest challenges in the pharmaceutical industry. Amorphous solid dispersions (ASD) have been considered as the most promising strategies to improve the oral bioavailability. The major drawback of these amorphous systems is the recrystallized tendency upon dissolution process or during storage. The polymeric carrier can influence ASD with various properties in terms of physical stability, phase behavior, and drug release rate and extent. Therefore, the fundamental understanding of polymeric carriers' mechanisms within the ASD system can potentially reduce the drawbacks and advance the formulation during the R&D process.