Texas Tech University
Department of Chemical Engineering
Seminar Series

Solid State issues encountered in drug formulation and development: An industry perspective

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Abstract
Solid-state characterization is an integral part of drug development in the pharmaceutical industry since the solid form affects product quality and performance. Solid-state chemistry not only enables form selection, but also ensures form control in the final formulation during its assigned shelf life. Selection of the appropriate form as well as characterization are key requirements for formulation development and for regulatory compliance. In this presentation, case studies will be discussed encompassing both crystalline and amorphous forms, showcasing how form selection via detailed solid-state characterization and control are pivotal for formulation development.

Bio
Paroma Chakravarty obtained her MS in Industrial Pharmacy from the University of Toledo in 2004 and joined Prof Raj Sury's lab to pursue her doctoral studies in Pharmaceutics at the University of Minnesota, Twin Cities. She graduated in 2010 and joined Genentech, Inc (San Francisco Bay Area) in the Small Molecule Pharmaceutical Sciences department of Genentech Research and early Development (gRED). She started off in Discovery/pre-formulation followed by a stint in late stage formulation development where she was the solid state lead and coformulator for a Phase II oncology molecule and finally found her "way back home" when the solid-state group was formed in 2015. She is currently a scientist in the materials characterization group and works closely with both process chemists and formulators on solid form screening, crystallization, drug substance and drug product characterization. Paroma has 18 peer reviewed publications to her credit (14 first author) and two patents. She has also served as the chairperson of the Industrial Advisory Board of CPPR (Center for Pharmaceutical Processing Research) from 2015-2016.

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