

CHICAGOLAND PHARMACEUTICAL DISCUSSION GROUP

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PROGRAM: DEVELOPING HIGH DRUG LOAD AMORPHOUS NANOPARTICLE FORMULATION FOR ORAL DELIVERY

DATE: WEDNESDAY, DECEMBER 13, 2023

SPEAKER: DR. HITESH PUROHIT, PRINCIPAL RESEARCH SCIENTIST, ABBVIE INC.

Amorphous solid dispersion (ASD) is an enabling approach utilized to deliver poorly soluble compounds. ASDs can spontaneously generate drug-rich amorphous nanoparticles upon dissolution, which can act as a reservoir for maintaining supersaturation during oral absorption. However, conventional ASDs are often limited in drug loadings to < 20%. For indications where the dose is high, this can translate into a significant pill burden for patients. This presentation will describe the research undertaken to develop a 45% drug load amorphous nanoparticle (ANP) formulation that can release the drug-rich nanoparticles into solution upon contact with aqueous environment. In addition to the formulation/process development and analytical characterization of the ANP formulation, the in vivo performance in dogs and humans in comparison to a reference conventional ASD formulation will also be discussed.

Dr. Purohit is currently a Principal Research Scientist in Drug Product Development organization at AbbVie. He received his Ph.D. in Pharmaceutics from Purdue University in 2017 where his research focused on understanding the hydration and dissolution behavior of amorphous solid dispersions. At AbbVie, his experience includes leading drug product teams toward developing conventional and enabling solid oral formulations, characterizing intermediates and finished drug products, and manufacturing process development. His research interests include understanding the phase behavior of amorphous dispersions, utilizing high-resolution analytical techniques to study drug product microstructure, bioavailability enhancement approaches and modified drug delivery strategies. Dr. Purohit was recently recognized as an outstanding early career scientist for 2023 by Journal of Pharmaceutical Sciences. He has authored 18 publications in peer-reviewed journals and serves as a reviewer for 12 pharmaceutical journals.

TIME: 5:30 PM – SOCIAL HOUR

6:00 PM – DINNER

7:00 PM – MEETING

PLACE: JAMESON'S CHARHOUSE

151 E TOWNLINE RD, VERNON HILLS

COST: \$55.00

**REGISTER AT cpdgmeeting@gmail.com
ZELLE PAYMENT AT cpdg2022@gmail.com**

THE DINNER MEAL CHOICES ARE THE FOLLOWING:

1. DE JONGHE CRUSTED COD – FRESH BAKED PACIFIC COD WITH SIGNATURE SAUCE
2. CHICKEN PICANTE – SAUTÉED IN WHITE WINE AND MUSHROOMS & SERVED WITH RICE AND VEGETABLES
3. VEGETABLE KABOBS (GREEN PEPPER, ONION, MUSHROOM AND TOMATO) – SERVED WITH RICE (VEGETARIAN)

WHEN REGISTERING, PLEASE INDICATE YOUR SELECTED DINNER MEAL:

Meal Choice: Fish, Chicken, or Vegetarian	First Name	Sur (Last) Name	Company

**MAIL CONFIRMATION WILL BE SENT
CPDG ACCEPTS CASH, CHECKS (PERSONAL OR COMPANY) OR THROUGH ZELLE
FIRST FIVE STUDENTS ARE FREE
PLEASE MAKE RESERVATIONS EARLY NO-SHOWS WILL BE BILLED ACCORDINGLY
MORE INFORMATION CAN BE FOUND ON THE CPDG WEBPAGE:**

<https://aaps-cpdg.org/>

Firm Registration Deadline of 12:00 p.m., Monday, December 11, 2023

**DIRECTIONS TO THE DECEMBER 13 CPDG MEETING AT JAMESON'S CHARHOUSE
151 E TOWNLINE RD, VERNON HILLS, IL**

- EXIT I-94 AT TOWN LINE RD. (60)
- HEAD WEST ON TOWN LINE ROAD (60) PAST MILWAUKEE AVE (21)
- RESTURANT WILL BE ON THE LEFT-HAND SIDE OF THE ROAD

