

CHICAGOLAND PHARMACEUTICAL DISCUSSION GROUP

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PROGRAM: DIRECT MEASUREMENT OF DRUG DISSOLUTION AND BILE SALTS IN HUMAN GI TRACT FOR IMMEDIATE AND MODIFIED-RELEASE DRUG PRODUCTS

DATE: THURSDAY, NOVEMBER 10, 2022

SPEAKER: DR. DUXIN SUN, COLLEGE OF PHARMACY, UNIVERSITY OF MICHIGAN

During oral drug product development, in vitro and in vivo drug dissolution in human gastrointestinal (GI) tract needs to be optimized. In addition, the bile salts in the GI, which are altered under fasting and fed conditions, impact the drug dissolution, disease states, and microbiome. Further, the microbiome in the human GI tract regulates disease conditions and drug treatments. However, there is a lack of data for the drug dissolution, bile salts, and microbiome in different regions of human GI tract.

This presentation provides direct measurement of drug dissolution, bile salts, and microbiome in different regions of human GI tract under fasting and fed conditions using intubation or wireless sampling capsule. The team directly measured drug dissolution in different regions of human GI tract (stomach, duodenum, jejunum, and ileum) for the immediate-release, modified-release, and locally acting drug products. Comparison of 15 bile salt profiles in different regions of human small intestine after fasting and fed conditions was also conducted. Additionally, the team investigated the microbiome in different regions of human small intestine and colon.

Dr. Sun is the Associate Dean for research, and the Charles Walgreen Jr. Professor of Pharmacy, Professor of Pharmaceutical Sciences in the College of Pharmacy at the University of Michigan. He serves as the Director of Pharmacokinetics (PK) Core. Dr. Sun also has joint appointment in the Chemical Biology program, the Interdisciplinary Medicinal Chemistry program, and University of Michigan's Comprehensive Cancer Center. Dr. Sun received broad training in Pharmaceutical Sciences (Ph.D.), Molecular Biology (visiting scientist), Pharmacology (MS) and Pharmacy (BS). Dr. Sun's research interests focus on drug discovery, nanomedicine and pharmacokinetics. He has published more than 260 papers (H-index 66), mentored 37 Ph.D. students and 70 postdoctoral fellows/visiting scientists. Dr. Sun is a Fellow of American Association of Pharmaceutical Scientists (AAPS). Dr. Sun served on FDA Pharmaceutical Science and Clinical Pharmacology Advisory Committee (2017-2020). He also has served on study section for NIH and FDA.

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

THE DINNER MEAL CHOICES ARE THE FOLLOWING:

1. MACADAMIA CRUSTED TILAPIA IN LEMON BUTTER 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 PILAF (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 AND CHECKS (PERSONAL OR COMPANY) ONLY!!!
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://www.aaps.org/aaps/membership-and-community/regions/chicagoland>

Firm Registration Deadline of 12:00 p.m., Tuesday, November 8, 2022

**DIRECTIONS TO THE NOVEMBER 10, 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

