

Workshop

Pharmaceutical Technologies in Drug Discovery & Drug Development

Date & Place: March 20-21, 2023

Organizer: Jered Garrison, Ph.D. (UNMC)

Host: Ram I Mahato, Ph.D., Chairman, Department of Pharmaceutical Sciences, UNMC

Background: Current drug development is a complex and multi-faceted process that requires expertise in many fields within the disciplines of chemistry, biology, biophysics and clinical sciences. The path from biological target identification and lead drug development to FDA-approved agent is a time-consuming, costly and complicated process that generally requires collaborations and contributions from academia, pharmaceutical or biotechnology industries, regulatory agencies, and patient organizations. At the same time, the drug development landscape is constantly evolving as new technologies, therapeutic approaches and regulatory requirements are introduced into drug development pathways. Due to this evolving environment, the next generation of scientists (i.e., graduate students and postdoctoral fellows) must understand current drug development approaches, how the various drug development stakeholders contribute to the process and be mindful of possible future shifts in the drug development landscape. The Department of Pharmaceutical Sciences in the College of Pharmacy at UNMC is dedicated to providing educational opportunities and training to facilitate better student understanding of current drug development with the overall goal of placing them in a better position to advance their respective fields and improve human health.

The Objective of This Workshop: This workshop is intended to provide early career scientists with an overview of current drug development and an opportunity to consider career paths outside of academia. To that end, esteemed scientists from the pharmaceutical industry and regulatory agencies have been invited to share their insights and perspective on the current state of drug development. In addition, the speakers will discuss their overall career trajectory and the various opportunities they explored as their careers developed. A poster session will be conducted to allow student participants to share their research activities and accomplishments. Lastly, panel discussion sessions will be organized to facilitate dialog between speakers and participants.

Day 1 (8:35 am – 5:30 pm): 20-Mar-2023
Truhlsen Campus Events Center

Time (CST)	Topic Title	Title/Institution	Speaker
8:35 – 8:45	Welcome	Professor and Vice-Chair, Department of Pharmaceutical Sciences UNMC	Jered Garrison
8:45 – 9:00	Opening remarks	Senior Vice Chancellor for Academic Affairs Dean of Graduate Studies UNMC	H. Dele Davies
9:00 – 9:30	Pharmaceutical Development – Beginning with the End in Mind	Senior Vice President of Technical Operations Prelude Therapeutics	Madhu Pudipeddi
9:30 – 10:00	My Experience as a Serial Entrepreneur in Drug and Biotech Development	Associate Professor, Consultant UNMC, Anew Medical	Joseph Sinkule
10:00 - 10:15		Coffee Break	
10:15 - 10:45	Transforming Small Molecules into Medicinal Products through Phase-Appropriate Formulation and Process Design	Senior Principal Scientist Genetech	Helen Hou
10:45 - 11:15	Drug Development of mRNA therapeutics and Vaccines	Chief Scientific Officer and Chief Operating Officer Arcturus Therapeutics	Pad Chivukula
11:15 – 11:45		Q&A with AM speakers (Panel with Lunch)	
11:45 – 12:20		Lunch	
12:20 – 12:30		Photo of All Workshop Attendees in the Atrium	
12:30 – 12:45	Afternoon Session Remarks from Dean	Professor of Pharmacy Practice and Science Dean of the College of Pharmacy UNMC	Dean Olsen
12:45 – 1:15	Role of Imaging in Research	Senior Scientist AstraZeneca	Jyoti Roy
1:15 - 1:45	Pb-203 Image-Guided Pb-212 Receptor Targeted Alpha Particle Therapy for Cancer – Developing a potent new platform for cancer therapy	Chief Science Officer Viewpoint Molecular Targeting	Michael K.Schultz

1:45 – 2:05	Panel Q&A with PM speakers		
2:05 – 2:15	Break		
2:15 – 3:45	Panel discussion (Q&A)	Career Paths Outside Academia (3 groups of 3/4 industry speakers)	Moderator: TBD
3:45 – 3:50	Closing Day Remarks	Associate Professor, Department of Pharmaceutical Sciences Associate Dean for Research and Graduate Studies in the College of Pharmacy UNMC	Aaron Mohs
3:50 – 5:30		Student Poster Session	COP Students

Day 2 (8:30 am – 12:00 pm) - 21-Mar-2023
Truhlsen Campus Events Center

Time	Topic	Title/Institution	Speaker
8:30 – 9:00	Pharmaceutical Chemistry Enabling the Discovery and Development Interface	Distinguished Professor University of Kansas	Michael Hageman
9:00 – 9:30	Mitigating late-stage process development challenges of small molecule drug products	Associate Director Bristol-Myers Squibb	Deepak Bahl
9:30 – 9:45	Break		
9:45 – 10:15	Clinical Pharmacology Aspects in Drug Development	Team Leader in the Office of Clinical Pharmacology FDA	Dakshina Chilukuri
10:15 – 10:45	Integrated role of clinical Pharmacology in drug development	Senior Principle Scientist Merck Pharmaceuticals	Surya Ayalasomayajula
10:45 – 11:05	Panel Q&A with AM speakers		
11:05 – 11:45	IP/Tech Transfer Presentation	UNeMed UNMC	Michael Dixon
11:45 – 12:00	Closing Workshop Remarks	Professor and Chair, Department of Pharmaceutical Sciences UNMC	Ram Mahato