

# DEPARTMENT OF PHARMACEUTICS

**Spring 2024 Seminar Series**  
**Tuesdays 3:00-4:00 PM | Moos 5-125**  
 Email [kmjames@umn.edu](mailto:kmjames@umn.edu) to request a Zoom link

Jan 16	<b>MECHANICAL PROPERTIES AND COMPRESSIBILITY OF AMORPHOUS PHARMACEUTICALS</b> <i>Vikram C. Joshi, PhD Candidate, Sun Lab</i>
Jan 23	<b>POTENTIAL CONTRIBUTIONS OF BLOOD-BRAIN-BARRIER DYSFUNCTION INVOLVING PERICYTE LOSS TO THE PROGRESSION OF ALZHEIMER'S DISEASE</b> <i>Doug Nelson, PhD Candidate, Kandimalla Lab</i>
Jan 30	<b>SYSTEMS PHARMACOLOGY APPROACHES TO INVESTIGATE NEUROVASCULAR UNIT INTEGRITY AND FUNCTION</b> <i>Karunya Kandimalla, PhD, Professor, Department of Pharmaceutics, and Associate Dean for Graduate Education, College of Pharmacy</i>
Feb 6	<b>EVALUATING THE IMPACT OF VARIED CONDITIONS ON THE FUNCTIONAL ROLE OF EXTRACELLULAR VESICLES IN THE INTERCELLULAR TRANSFER OF NANOPARTICLES</b> <i>Yiqin Li, PhD Student, Pang Lab</i>  <b>RADIATION THERAPY FOR BRAIN TUMORS: DOES IT INFLUENCE DRUG DELIVERY?</b> <i>Lina Le, PhD Student, Elmquist Lab</i>
Feb 13	<b>STEM CELL-DERIVED MODELS OF THE HEALTHY AND DISEASED BLOOD-BRAIN BARRIER</b> <i>Samira Azarin, PhD, Associate Professor, Shell Distinguished Chair, and Director of Undergraduate Studies in Chemical Engineering, Department of Chemical Engineering and Materials Science</i>
Feb 20	<b>MICROBATCH - A MATERIAL-SPARING TECHNIQUE FOR ROLLER COMPACTOR FORMULATION DEVELOPMENT</b> <i>Yiwang Guo, PhD, Researcher 5, Sun Lab</i>  <b>DRUG PHASE TRANSFORMATION DURING CONTINUOUS TABLET MANUFACTURING</b> <i>Bhushan Munjal, PhD, Postdoctoral Associate, Sury Lab</i>
Feb 27	<b>A SYSTEMATIC INVESTIGATION OF THE TABLETABILITY FLIP PHENOMENON</b> <i>Zijian Wang, PhD Candidate, Sun Lab</i>
Mar 5	<b>NO SEMINAR – Spring Break</b>
Mar 12	<b>ADVANCES IN LIPOSOMES AND LIPID NANOPARTICLES AS DRUG CARRIERS - ARE WE THERE YET?</b> <i>Francis C. Szoka, Jr., PhD, Emeritus Professor of Bioengineering, Therapeutic Sciences and Pharmaceutical Chemistry, University of California, San Francisco</i>
Mar 19	<b>MICROENCAPSULATION BY COACERVATION</b> <i>Tianyi Xiang, PhD Student, Sun Lab</i>  <b>MARKER MOLECULES TO MEASURE THE BLOOD-BRAIN BARRIER PERMEABILITY IN AND AROUND BRAIN TUMORS</b> <i>Juhee Oh, PhD, Researcher 5, Elmquist Lab</i>
Mar 26	<b>INVESTIGATING TNF ALPHA'S IMPACT ON AMYLOID BETA UPTAKE IN BLOOD-BRAIN BARRIER ENDOTHELIAL CELLS AND THE INFLUENCE OF GUT METABOLITES ON CEREBROVASCULAR INFLAMMATION IN ALZHEIMER'S DISEASE: EXPLORING MOLECULAR MECHANISMS</b> <i>Virshali Salian, PhD Candidate, Kandimalla Lab</i>
Apr 2	<b>UNDERSTANDING NANOPARTICLE SYNERGISTIC CELLULAR ENTRY THROUGH MOLECULAR DYNAMIC SIMULATION</b> <i>Nianwu Wang, PhD Student, Pang Lab</i>  <b>EFFECT OF GUT MICROBIAL METABOLITE SODIUM BUTYRATE ON ALZHEIMER'S AMYLOID BETA 42 TRANSPORT ACROSS THE BLOOD BRAIN BARRIER ENDOTHELIUM</b> <i>Vaishnavi Veerareddy, PhD Student, Kandimalla Lab</i>
Apr 9	<b>EFFECT OF FREE SURFACE ON CRYSTALLIZATION AND POLYMORPH SELECTION IN MOLECULAR LIQUIDS AND GLASSES</b> <i>Lian Yu, PhD, Professor, Pharmaceutical Sciences and Chemistry, School of Pharmacy, University of Wisconsin-Madison</i>
Apr 16	<b>IONTOPHORETIC DELIVERY OF DRUGS VIA IONTOPATCH™: SCIENTIFIC FUNDAMENTALS, PRACTICAL APPLICATIONS, AND IONTOPATCH™ MANUFACTURING OVERVIEW</b> <i>Marina Ruleva, PhD Student, Siegel and Kandimalla Labs</i>  <b>USING A MACROPHAGE TARGETING PEPTIDE TO IMPROVE STEROID DRUG DELIVERY</b> <i>Mitch Kowalke, PhD Student, Pang Lab</i>
Apr 23	<b>SCREENING THE DISEASE TARGETING PEPTIDE USING IN VIVO PHAGE DISPLAY TECHNIQUE</b> <i>Hae chan Kim, PhD Student, Pang Lab</i>  <b>DRUGGING THE UNDRUGGABLE: KRAS PATHWAY IN CANCER</b> <i>Ruisi Leng, PhD Student, Elmquist Lab</i>