



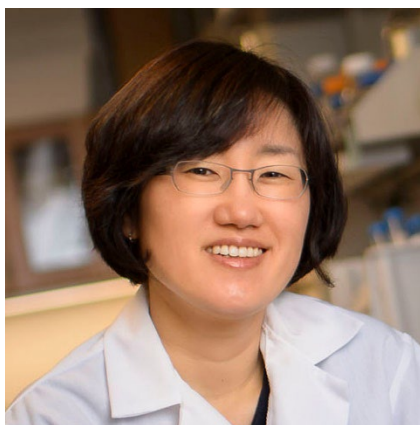
COLLEGE OF PHARMACY  
**PHARMACEUTICAL SCIENCES**  
UNIVERSITY OF MICHIGAN

**Pharmaceutical Sciences Seminar Series**  
Hybrid

Wednesday, November 16, 2022  
4:00pm  
NCRC Building 10 - South Atrium  
[Zoom Link](#)

**“Carrier engineering for local drug delivery  
and chemoimmunotherapy”**

Presented by:



**Yoon Yeo, Ph.D.**

Professor and Associate Head of Industrial and Physical Pharmacy  
Purdue University

**Abstract:** A controlled drug delivery system aims to deliver a therapeutic agent at the right time to the right place, overcoming biological barriers that may prematurely inactivate or eliminate the drug. Since the dawning of controlled drug delivery systems in the 1950s, the pharmaceutical field has seen significant breakthroughs in delivery technologies, including long-acting injectable polymeric formulations, PEGylation, liposomes, antibody-drug conjugates, with the latest being lipid nanoparticles for mRNA vaccine delivery. My lab strives to contribute by developing new drug carriers for various applications facing drug delivery challenges, including chemoimmunotherapy, systemic gene delivery, and long-acting local drug delivery. In this seminar, I will introduce our recent development of polymeric implants and microparticles, designed for controlling local inflammation/biofouling and ocular neovascularization. I will discuss how the needs for drug release control vary with applications and how we have tailored drug carriers to address the diverse needs. I will also introduce our drug carriers designed to leverage cancer immunotherapy and deliver therapeutic genes to extrahepatic organs.

**Short Bio:** Prof. Yoon Yeo is a Professor and Associate Department Head of Industrial and Physical Pharmacy at Purdue University. She has built expertise in pharmaceutical sciences and drug delivery through Ph.D. training in protein microencapsulation and post-doc training in hydrogel-based biomaterials. At Purdue, Prof. Yeo leads a research program specializing in immunomodulatory formulations for anti-inflammatory applications and cancer immunotherapy, intracellular delivery of gene therapeutics and peptide antibiotics, new methods of delivering anticancer drugs, and long-acting drug delivery systems, with the support of the NIH, NSF, and industry. She has authored 119 peer-reviewed papers and 11 book chapters, with an h-index of 58 and >10700 citations. Prof. Yeo is a Fellow of the American Association of Pharmaceutical Scientists (AAPS, since 2019) and the Controlled Release Society (CRS, since 2022) and currently serve as an Associate Editor of the Journal of Controlled Release. She received the NSF CAREER award (2011), New Investigator Awards from the AAPS (2009), and American Association of Colleges of Pharmacy (2008).