

*The Medicinal Chemistry Seminar Series presents:*

***2024 John G. Topliss Award Lectureship***

**Dr. Amy Newman**

**Scientific Director of the NIDA IRP; Chief of the Molecular Targets and Medications Discovery Branch; Chief of the Medicinal Chemistry Section; Director of Medication Development Program,  
National Institute of Health**

***“Dopamine D3 receptor-directed medication development for the treatment of substance use disorders: Rationale, progress, and challenges”***

**Palmer Commons 4th Floor Forum Hall**

**1:30pm-2:30pm Thursday, November 30th, 2023**

**Abstract:**

Highly selective dopamine D3 receptor (D3R) partial agonists/antagonists have been developed for the treatment of substance use disorders (SUD) using a bitopic drug design. Recently, we have used our bitopic and selective D3R agonist to determine the cryo-EM structure of the hD3R coupled to a GO heterotrimer. Tweaking the selectivity and efficacy of these compounds has broadened their potential therapeutic efficacy toward neuropsychiatric disorders comorbid with SUD.