

WS 4: GLP-1 Receptor Agonists: The Ever-Changing Landscape with Clinical and Forensic Implications

Audience Knowledge: Intermediate

Workshop Chairs

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Abstract

The GLP-1 receptor agonists used to treat diabetes and obesity also demonstrate the potential for multiple medical applications. Conversely, GLP-1 medications can affect co-administered medications or recreational drugs by altering absorption, distribution, and other mechanisms, thus impacting forensic interpretations. Topics will focus on the intersection between the clinical applications of this class of medications and potential forensic complications. A specific area of interest is in the treatment of alcohol use disorder (AUD) and substance use disorder (SUD). GLP-1RAs work by activating GLP-1 receptors that are widely distributed not only in metabolic organs but also throughout the central nervous system (CNS) and the gut-brain axis. GLP-1 is produced both in intestinal cells and in neurons in the brainstem. Although some GLP-1RAs do not easily cross the blood-brain barrier, they may still affect brain regions through specialized entry points or transport systems. Evidence for neuropsychiatric applications explores the ability for this class of medications to be repurposed for neurological, cognitive, psychiatric, mood/anxiety, and substance use disorders.

Speakers

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Workshop Agenda

Time	Topic	Speaker
08:00 AM - 08:10 AM	Welcome/Introductions	Langman, Wagner
08:10 AM - 09:10 AM	Endocrinology of GLP-1	Langman
09:10 AM - 10:00 AM	GLP-1 and 5-HT _{2c} Receptors Agonist in the Ventral Tegmental Area (VTA) Role of Appetite Reward	Baumgartner
10:00 AM - 10:30 AM	Break	None
11:10 AM - 11:50 AM	GLP-1 Medications and their Role in Alcohol Use Disorder (AUD) and Substance Use Disorder (SUD) Treatment	Wagner
11:10 AM - 11:50 AM	Forensic Implications of GLP-1 Medications and their Interactions with Prescription Drugs and Recreational Substances	Wagner
11:50 AM - 12:00 PM	Q and A Word Cloud	Baumgartner, Langman, Wagner