

Examining Glucagon-Like Peptide-1 Receptor (GLP-1R) Agonists for Central Nervous System Disorders

A Workshop

Tuesday, September 10, 2024: 9:00 am – 4:30 pm ET

Objectives

- Review the current state of knowledge regarding the mechanisms of action of GLP-1R agonists and their therapeutic applications across different disease areas, with a focus on central nervous disorders.
- Discuss available scientific evidence on the clinical efficacy of GLP-1R agonists, among other considerations, for treating various central nervous system disorders, specifically, eating disorders, neurodegenerative diseases, alcohol and substance use disorders.
- Examine clinical trial and regulatory considerations surrounding the application of GLP-1R agonists as therapeutic treatments for central nervous system disorders.
- Highlight current research gaps (e.g., GLP-1R agonists for pain management) and consider opportunities to move the field forward.

TUESDAY, SEPTEMBER 10TH, 2024

9:00am

Introductory Remarks

Frances Jensen, University of Pennsylvania, *Forum on Neuroscience and Nervous System Disorders Co-chair*

Deanna Barch, University of Washington in St. Louis, *Forum on Neuroscience and Nervous System Disorders Co-chair*

9:05am

Workshop Overview

Matthew Hayes, University of Pennsylvania, *Workshop Co-Chair*

Brian Fiske, The Michael J. Fox Foundation for Parkinson's Research, *Workshop Co-Chair*

9:10am

Keynote Presentation: History of GLP-1Rs and Current Therapeutic Applications

Daniel Drucker, University of Toronto (Zoom)

9:25am

Overview of GLP-1 circuitry in the Central Nervous System

Linda Rinaman, Florida State University

Anna Secher, Novo Nordisk (Zoom)

9:45am **Moderated Panel & Audience Q&A**

10:05am Session 1: Clinical Efficacy & Mechanisms of Action of GLP-1R Agonists in Central Nervous Systems

Objective:

- Review the current state of knowledge regarding the mechanisms of action of GLP-1R agonists and their therapeutic applications across different disease areas.
- Discuss available scientific evidence on the clinical efficacy of GLP-1R agonists, among other considerations, for treating various central nervous system disorders, including eating disorders, neurodegenerative diseases, and alcohol and substance use disorders.
- Consider the unique challenges (e.g., stigma, health disparities, clinical trial design, biomarker development) for each disease area.

10:05am Session 1a: Ingestive Behavior Disorders

10:05am Session Overview

Kimberlei Richardson, Howard University

10:10am A Lived Experience Utilizing GLP-1R Agonists

Patricia Nece, Obesity Action Coalition

10:20am Speaker Presentations

Jon Davis, Novo Nordisk

Elizabeth Mietlicki-Baase, University of Buffalo

Susan McElroy, University of Cincinnati (Zoom)

10:45am Moderated Panel and Audience Q&A

11:10am BREAK

11:25am Session 1b: Substance Use Disorder & Alcohol Use Disorder

11:25am Session Overview

Lorenzo Leggio, National Institute on Drug Abuse & National Institute on Alcohol Abuse and Alcoholism

11:30am Speaker Presentations

Elisabet Jerlhag Holm, University of Gothenburg (*Zoom*)

Heath Schmidt, University of Pennsylvania

Mehdi Farokhnia, National Institute on Drug Abuse & National Institute on Alcohol Abuse and Alcoholism

Rong Xu, Case Western Reserve

Patricia (“Sue”) Grigson, Penn State University

12:10pm Moderated Panel and Audience Q&A

12:35pm LUNCH BREAK

1:15pm Session 1c: Neurodegenerative Disorders and Other Emerging Areas

1:15pm Session Overview

Edwin (“Ted”) George, Food and Drug Administration

1:20pm Speaker Presentations

Nigel Greig, National Institute on Aging

Dilan Athauda, University College London & The Francis Crick Institute

Christian Hölscher, Kariya Pharmaceuticals

Alexandra Sinclair, University of Birmingham

1:50pm Biomarker Development for Clinical Evidence & Regulatory Approval

Laura Jawidzik, Food and Drug Administration

2:00pm Moderated Panel and Audience Q&A

2:25pm BREAK

2:40pm Session 2: Real-World Evidence, Accessibility, and Health Equity

Objectives:

- Consider the role of real-world evidence (RWE) for the repurposing of GLP-1R agonist in CNS disorders.
- Evaluate the impact of widespread usage of GLP-1R agonists on patient and public accessibility and the supply chain.
- Consider future challenges and opportunities to improve health equity for the use of GLP-1R in different therapeutic areas.

2:40pm Session Overview

Serena Jingchuan Guo, University of Florida

2:45pm A Lived Experience Perspective on Accessibility and Equity

Karen Glanz, University of Pennsylvania

2:50pm Speaker Remarks

Jiang Bian, University of Florida

Robert Kosko, Food and Drug Administration (*Zoom*)

Fatima Cody Stanford, Massachusetts General Hospital & Harvard Medical School

3:10pm Moderated Panel and Audience Q&A

3:50pm Session 3: Synthesis & Opportunities to Move Forward

Objectives:

- Examine the core themes that have been highlighted during the workshop.
- Highlight current research gaps and consider opportunities to move the field forward.

3:50pm Session Overview

Matthew Hayes, University of Pennsylvania, *Workshop Co-Chair*

Brian Fiske, The Michael J. Fox Foundation for Parkinson's Research, *Workshop Co-Chair*

3:55pm Themes & Future Opportunities Discussion

Matthew Coghlan, Eli Lilly and Company

Karen Glanz, University of Pennsylvania

Serena Jingchuan Guo, University of Florida

Iván Montoya, National Institute on Drug Abuse

Patricia Nece, Obesity Action Coalition

4:25pm Concluding Remarks

Matthew Hayes, University of Pennsylvania, *Workshop Co-Chair*

Brian Fiske, The Michael J. Fox Foundation for Parkinson's Research, *Workshop Co-Chair*

4:30pm Adjourn