



DEPARTMENT OF CLINICAL NEUROSCIENCE

K8F6025, Psychedelic Science: From Preclinical Studies to Clinical Practice, 1.5 credits (hec)

Psykedelisk vetenskap: Från prekliniska studier till klinisk praktik, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by the The Committee for Doctoral Education on 2024-09-05, and is valid from spring semester 2025.

Responsible department

Department of Clinical Neuroscience, Faculty of Medicine

Prerequisite courses, or equivalent

No prerequisite courses, or equivalent, demanded for this course.

Purpose & Intended learning outcomes

Purpose

There is a paucity of treatments for many psychiatric disorders. Classical psychedelic drugs stimulate the serotonin 2A receptor (5-HT_{2A}R) and have shown a good safety profile. Some of these compounds have shown rapid and sustained therapeutic effects in some human clinical trials and they are currently being explored in several clinical trials for various psychiatric and neurological disorders. However, it is still unclear how the molecular and functional mechanisms of the substances relate to these subjective and clinical effects, and how treatments should be designed to optimize cost-effective and lasting effects. The overall aim of this course is to provide an overview of the research front in the field of classical psychedelics - from preclinical studies to clinical practice.

Intended learning outcomes

Upon completion of the course, students should have a good overview and be able to compile,

assess and explain the current state of research, including key knowledge gaps, on:

- Molecular and functional mechanisms of action of classical psychedelics.
- Possible relationships between the molecular and functional mechanisms of action and subjective and clinical efficacy, including the challenges of research with classical psychedelics.
- Clinical applications of classical psychedelics covering models of administration, short- and long-term effectiveness, safety, and ethical and regulatory perspectives.

Course content

This course will cover a historical timeline of key events in classical psychedelics science, gives an overview of the current state of research in the field – from preclinical studies to clinical practice, and provides students the opportunity to deepen their knowledge in their area of expertise.

Forms of teaching and learning

Teaching and learning activities include lectures, group discussions, a group exercise and an individual writing assignment.

Language of instruction

The course is given in English

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

The group exercise and the individual written examination assignment are compulsory.

Forms of assessment

Students demonstrate achievement of the learning outcomes by actively participating in the group discussions during lectures, the group exercise and by completing the individual written examination assignment. Absence from any compulsory part of the course can be compensated for by an additional written assignment in agreement with the course coordinator. All students are assessed individually.

Course literature

Handouts and articles covering the lectures will be provided by the lecturers/course organizers during the course.