

Animal models of Substance Use Disorders

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1 ECTS

Summary

Substance use disorder is commonly defined as a neurobiological disease involving loss of control over drug consumption, and frequent episodes of relapse elicited by drug-associated cues. The individual, societal and economic costs of substance use disorders remain unacceptably high and efficient treatment options remain somehow limited. Preclinical research involving non-human animals has made significant contribution to our understanding of substance use disorder, including its etiology, factors of risk, neuroadaptations following chronic drug use and the development of treatments.

In this course, students will learn about the different animal models of substance use disorders and their importance to improve our understanding of this disorder, prevent its development and develop new treatments. We will also discuss about the limits of animal models to investigate this complex and heterogeneous psychiatric disorder.

Course level Introductory

Course dates

- 5 sessions on Thursdays from September 9 – October 7, 2021
- Always from 8:30 – 11:00

Content of course sessions

Session 1: Translational research on Substance Use Disorders
Session 2: Behavioral paradigms – Modeling pathological drug use in non human animal
Session 3: Behavioral paradigms – How to make an animal addict?
Session 4: Are animal models of addiction really useful?
Session 5: What we have learned so far? Review of the main neurobiological theories of addiction

Course materials

Power point presentations, publication reading

- go to "<https://moodle2.unil.ch>"
- log in with your institutional address (unil, chuv, epfl)
- click on "[Faculté de Biologie et de Médecine](#)" > "[Ecole doctorale / doctoral school](#)" > "[Lemanic Neuroscience Doctoral School](#)"
- course materials and papers will be stored under "[Animal models of Substance Use Disorders](#)"

- Location** Zoom live streams; Participation link and password indicated in Moodle entry
- Evaluation** The final assessment will consist in a short report (2 pages max) in which students will propose and present a (new) model of addiction. Students will have to (1) detail which aspect(s) of addiction their model will address, (2) thoroughly describe their model, (3) describe the expected outcome, (4) discuss the limits and (5) conclude about the relevance of their model for the scientific community.
- Registration** The course is limited to 15 participants. Register before August 31 by writing a mail to Indscourses@gmail.com (with your supervisor in copy) and stating the course title as subject.”