

Course: “Neurobiology of drug abuse”

Coordinators: Angela Ma Ribeiro and Christopher Kushmerick

Duration: from 4 to 6 of July: * 15h (**theory and discussions**) ; * 30h for the students enrolled for laboratory practical.

Level: Advanced undergraduate, Masters, and Doctoral Students

Note: This course will be offered in English

Description:

The course will cover modern techniques used to study alcoholism and drug abuse at the level of individual cells and neuronal circuits. The emphasis will be on integrative neuroscience research techniques involving precise measurement of neuronal activity in relation to behavior, as well as methods to manipulate neuronal/circuit function and gauge the impact on behavior.

Tue July 4	10:30-11:00	David Lovinger - NIAAA- NIH	General Introduction-
	11:00-11:30	Daniel Almeida, NIAAA-NIH	Experimental models to study the neural basis of alcoholism.
	11:30-12:00	Discussion – interactive activities	Guided activity (scientific articles will be distributed).
	14:00-20:00	Laboratory Practical (Limited enrollment)	
Wed July 5	09:00-9:30	Christopher Kushmerick, ICB-UFMG	Slice electrophysiology
	9:30-10:00	Cleiton Aguiar, ICB-UFMG	Optogenetics in vivo
	10:00-10:30	Lígia Naves, ICB-UFMG	Optogenetics in vitro & TIRF Microscopy
	10:30-12:00	Discussion – interactive activities	Guided activity (scientific articles will be distributed).
	14:00-20:00	Laboratory Practical (Limited enrollment)	
Thur July 6	09:00-9:30	Daniele Aguiar, ICB-UFMG	Leptin and brain reward system
	9:30-10:00	Fabrcio Moreira, ICB-UFMG	Endocannabinoid signaling
	10:30-12:00	Discussion – interactive activities	Guided activity (scientific articles will be distributed).
	14:00-20:00	Laboratory Practical (Limited enrollment)	

Dr. David Lovinger will be present in two of the three days during the discussion sections.