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# doc. PharmDr. Magdaléna Šustková, CSc.

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Department of Pharmacology 3FM CU  
<https://www.lf3.cuni.cz/3LF-400.html>

## Topic title

New pharmacological approaches in addiction treatment based on neuronal cooperations in the brain reward system.

## Description of scientific activity

Assoc. Prof. Šustková graduated from the Faculty of Pharmacy of Charles University in Hradec Králové in clinical pharmacy and completed her doctoral studies at the former Research Institute for Pharmacy and Biochemistry in Prague. Now she works as an assistant professor and researcher at the Institute of Pharmacology, 3rd Medical Faculty of Charles University and elsewhere. She has long been involved in the field of substance abuse and addiction. She successfully defended her habilitation thesis entitled "Ghrelin/GHS-R1A antagonism in the mechanisms of opioid and methamphetamine addiction" in the field of medical pharmacology at the 1st Faculty of Medicine. She has completed a number of international stays and internships. In neuropsychopharmacological experimental research, the department uses a number of sophisticated models of addiction (including intravenous self-administration, in vivo microdialysis, etc.).

## Selected publications

Charalambous C., Havlickova T., Lapka M., Puskina N., Slamberova R., Kuchar M., Sustkova-Fiserova M.: Cannabinoid-Induced Conditioned Place Preference, Intravenous Self-Administration, and Behavioral Stimulation Influenced by Ghrelin Receptor Antagonism in Rats. *Int J Mol Sci.* 2021 Feb 27;22(5):2397. doi: 10.3390/ijms22052397  
IF časopisu: IF 5,923/2021); Kvartil v oboru: Q1 (Biochemistry & Molecular Biology)

Charalambous, C.; Lapka, M.; Havlickova, T.; Syslova, K.; Sustkova-Fiserova, M.: Alterations in Rat Accumbens Dopamine, Endocannabinoids and GABA Content During WIN55,212-2 Treatment: The Role of Ghrelin. *Int. J. Mol. Sci.* 2021, 22, 210.  
doi.org/10.3390/ijms22010210  
IF časopisu: IF 5,923/2020; Kvartil v oboru: Q1 (Biochemistry & Molecular Biology)

Sustkova-Fiserova, M.; Pushkina, N.; Havlickova, T.; Lapka, M.; Syslova, K.; Pohorala, V.; Charalambous, C.: Ghrelin receptor antagonism of fentanyl-induced conditioned place preference, intravenous self-administration and dopamine release in the nucleus accumbens in rats. *Addiction Biology*, 2019, Article e12845. DOI: 10.1111/adb.12845.  
IF: 4.280/2020, Kvartil v oboru: Q1/2020 (Substance Abuse)

## Selected or ongoing grants/clinical studies

GAČR 21-30795S Modulation of central ghrelin signalling - a new hope for the treatment of ethamphetamine dependence

GAČR 14-03708S Determination of the critical developmental period for the effects of methamphetamine in the laboratory rat

IGA NT/13687-3/2012 The role of appetite-affecting peptide hormones in opioid and alcohol addiction

## PhD Students

Number of PhD students currently studying: 5 (3 of them will finish the studies in 2022)

Number of defended students with year of defence: 2 (2021; 2018)

