



Swiss Society of Addiction Medicine  
Schweizerische Gesellschaft für Suchtmedizin  
Société Suisse de Médecine de l'Addiction  
Società Svizzera di Medicina delle Dipendenze

# Swiss Addiction Research Award (SARA) 2022

Dr. med. Louise Penzenstadler  
President of the Curatorium

## The winners of the Swiss Addiction Research Award 2022 are...

Etna Engeli



Elias Kraus



# Swiss Addiction Research Award 2022



Etna Engeli

Molecular Psychiatry (2021) 26:5277–5285  
<https://doi.org/10.1038/s41380-020-0828-z>

ARTICLE



## Impaired glutamate homeostasis in the nucleus accumbens in human cocaine addiction

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### Abstract

Cocaine addiction is characterized by overwhelming craving for the substance, which drives its escalating use despite adverse consequences. Animal models suggest a disrupted glutamate homeostasis in the nucleus accumbens to underlie addiction-like behavior. After chronic administration of cocaine, rodents show decreased levels of accumbal glutamate, whereas drug-seeking reinstatement is associated with enhanced glutamatergic transmission. However, due to technical obstacles, the role of disturbed glutamate homeostasis for cocaine addiction in humans remains only partially understood, and accordingly, no approved pharmacotherapy exists. Here, we applied a tailored proton magnetic resonance spectroscopy protocol that allows glutamate quantification within the human nucleus accumbens. We found significantly reduced basal glutamate concentrations in the nucleus accumbens in cocaine-addicted ( $N = 26$ ) compared with healthy individuals ( $N = 30$ ), and increased glutamate levels during cue-induced craving in cocaine-addicted individuals compared with baseline.

# Swiss Addiction Research Award 2022



Elias Kraus

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ORIGINAL INVESTIGATION



## Flashback phenomena after administration of LSD and psilocybin in controlled studies with healthy participants

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### Abstract

**Background** LSD and psilocybin are increasingly used in phase I trials and evaluated as therapeutic agents for mental disorders. The phenomenon of reoccurring drug-like experiences after the acute substance effects have worn off was described for both substances and especially attributed to LSD. According to the DSM-V, the persisting and distressing manifestation of these experiences is called hallucinogen-persisting perception disorder (HPPD). Data on both conditions is very limited.

**Objective** This study aims to provide descriptive data on reoccurring drug-like experiences after the administration of LSD and psilocybin in controlled studies with healthy participants.



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Congratulations on behalf of the  
Swiss Society of Addiction Medicine