

Károli University, Institute of Psychology

ERP-BPS2636 Psychedelic Psychotherapy

autumn semester 2021



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Psychedelic Psychotherapy presentations (12 x 1.5 h)

- [01] Sep 16 Introduction and Overview
- [02] Sep 23 Altered State Assisted Therapies
- [03] Sep 30 The Broader Context of Psychedelics
- [04] Oct 07 **Psychedelics: Substance Information**
- [05] Oct 14 Psychology of Psychedelic Experience
- [06] Oct 21 Psychedelics: Research, Experiments, Healing
- [07] Nov 04 Psychedelic-Assisted Psychotherapies: Theory
- [08] Nov 11 Psychedelic-Assisted Psychotherapies: Practice I
- [09] Nov 18 Psychedelic-Assisted Psychotherapies: Practice II
- [10] Nov 25 Psychedelic-Assisted Psychotherapies: Practice III
- [11] Dec 02 Psychedelic Experience Integration
- [12] Dec 09 Summary and Outlook

Course Topics

- altered states of consciousness; psychedelics
- **transpersonal psychology; trauma processing and regression;**
- **psychedelic research, experiments and healing**
- **psychometric measuring; addictions and dependence; assisted psychotherapies; ethics**
- **psychedelic and psycholytic therapies; therapist training; therapy protocols**
- **MDMA, psilocybin, ketamine, LSD, ibogaine, ayahuasca**
- **psychedelic experience integration**

[01] Introduction and Overview

Sep 16

Introduction of the course.

Topics and approaches.

Course requirements.

Practical issues.

[02] Altered State Assisted Therapies

Sep 23

Altered states of consciousness (ASC): definitions and phenomena.

Spontaneous, pathological and induced states.

Physiological, pharmacological and psychological inductions.

Altering subsystems of consciousness.

Therapeutic applications of ASC.

[03] The Broader Context of Psychedelics

Sep 30

Hallucinations: definitions and phenomena.

Hallucinogens: dissociative, deliriant, psychedelic.

Other related substances.

Purposes of substance use.

The drug instrumentalisation hypothesis.

Psychonaut subculture.

Biohacking.

[04] Psychedelics: Substance Information

Oct 07

**History, physiology, psychology and phenomenology of
psychedelics and related substances:**

ayahuasca

cannabis

DMT

ibogaine

ketamine

LSD

MDMA

muscimol

psilocybin

salvinorin A

LSA

mescaline

WARNING!

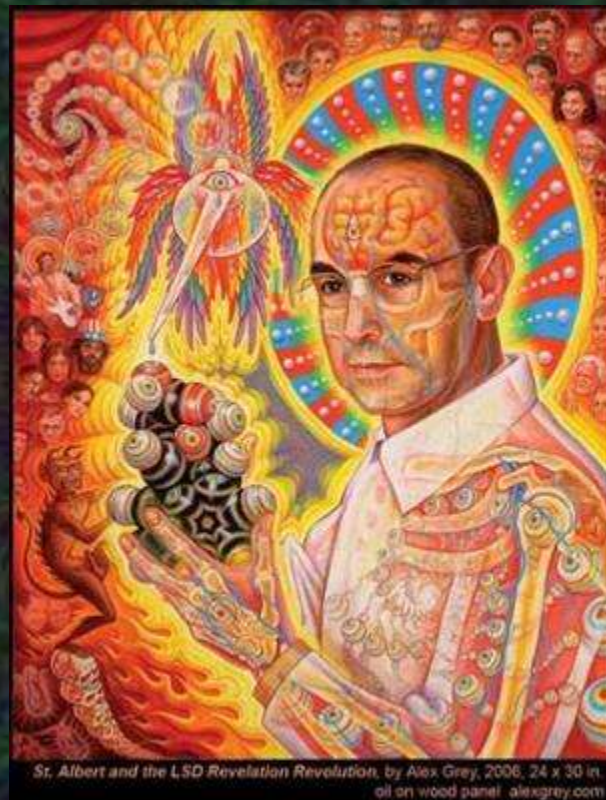
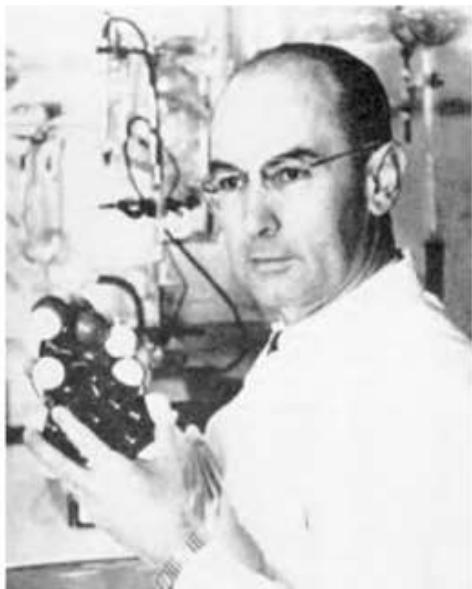
DRUGS ARE BAD



The following information about psychoactive substances is not meant to aid, assist, encourage, facilitate, foster, further, promote, put forward, redound, set forward or subserve the use of any drugs!

Albert Hofmann & LSD

(1943)



“In a dreamlike state, with eyes closed [...] I perceived an uninterrupted stream of fantastic pictures, extraordinary shapes with intense, kaleidoscopic play of colors.”

Hofmann A (1979) "LSD - My Problem Child"

Basic concepts

HALLUCINOGENIC

psychoactive substance that manifests perceptual experiences in the mind

PSYCHOTOMIMETIC

psychoactive substance that elicits effects that resemble symptoms of mental illness

PSYCHEDELIC

psychoactive substance that manifests, "expands" the mind

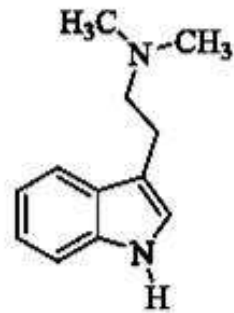
ENTHEOGENIC

psychoactive plant or substance that is used as a sacrament for eliciting spiritual or mystical experiences

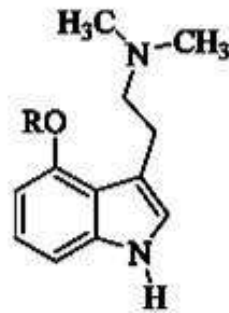
**Albert Hofmann
(1906-2008)**



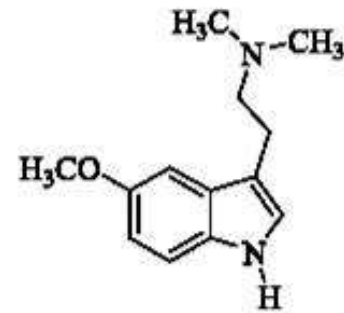
Chemistry



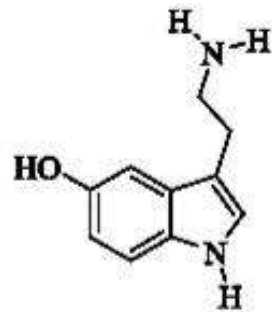
DMT



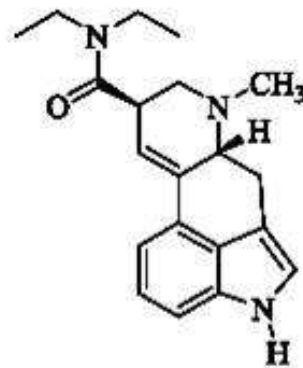
R = H; Psilocin
R = PO₃H; Psilocybin



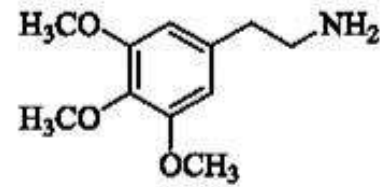
5-Methoxy-DMT



Serotonin; 5-HT



LSD



Mescaline

Neuropharmacology

Chemical resemblance: serotonin (5-HT) neurotransmitter
Usually serotonin 5-HT_{2A} receptor agonists
Minimal physiological effects/tolerance, no reward



Psychophysiology

Importance of **SET** and **SETTING!**

1. **Bodily effects:** vertigo, weakness, trembling, nausea, sleepiness, numbness, blurry vision
2. **Perceptual effects:** changed forms and colours, difficulty to focus on objects, sharpened hearing, in rare cases synaesthesia
3. **Mental effects:** mood changes (altering happy, sad, irritable), tension, changes in sense of time, difficulty to express thoughts, ego dissolution, dreamlike feelings, visual hallucinations

Phenomenology

- increased mood
- increased associations and creativity
- increased understanding and appreciation of music
- heightened senses (eating, drinking, smelling)
- open- and closed-eyed visuals (OEV & CEV)
- unusual thoughts and speech
- changed perception of time
- quickly changing emotions
- deep, life-changing spiritual experiences

Major psychedelics - from outside



LSD



psilocybin



mescaline



DMT

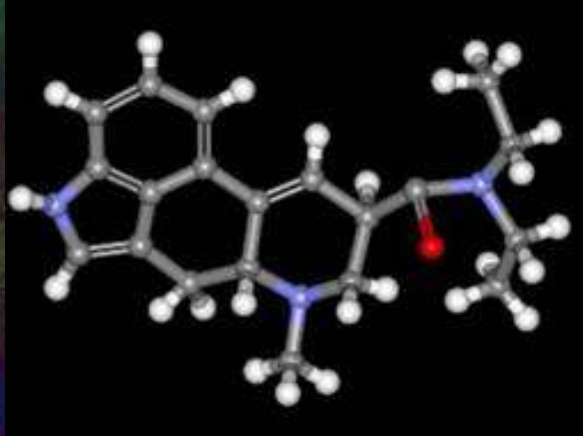


salvinorin-A



LSA

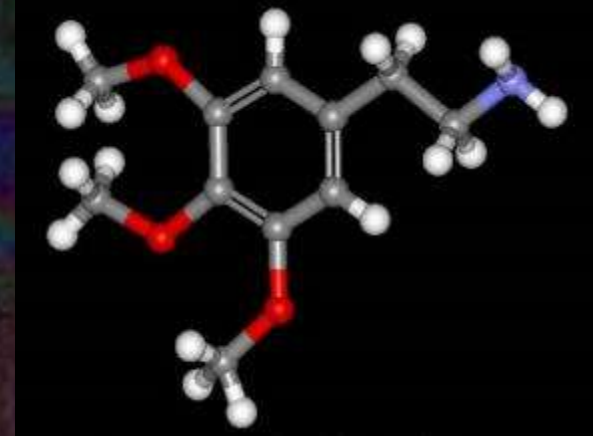
Major psychedelics - from inside



LSD



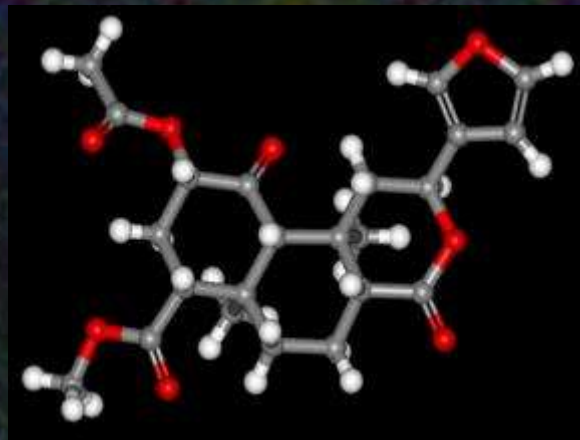
psilocybin



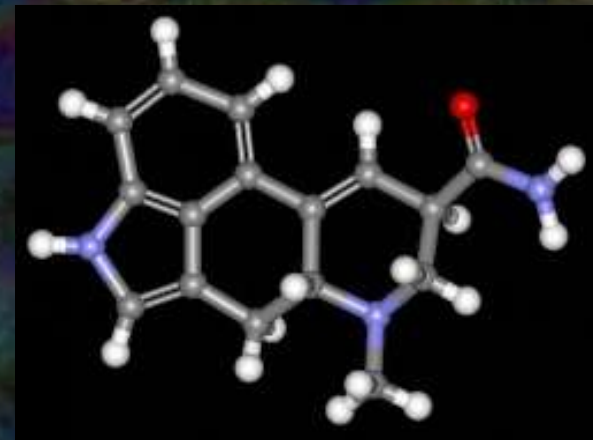
mescaline



DMT



salvinorin-A



LSA

psychedelics 1/12:
ayahuasca



ayahuasca

- plant decoction (DMT + MAOI)
- jungle retreats, religious-ritual ceremonies
- controlled setting, religion (community) as protective factor
- lower rate of substance use
- psychotherapy strongly "spiritual" - transcendence
- group experience: expectations, sharing
- immunological effects

psychedelics 2/12:
cannabis

- *Cannabis sativa var. indica*
- THC, CBD, CBDV, ...
- Marinol, Sativex, Bedrocan, Epidyolex
- antiemetic - appetite increasing (cancer, HIV)
- Sclerosis Multiplex muscle rigidity
- neurogenic pain
- antiepileptic
- „Cannabis Cures Cancer”
- antitumor effects: blood vessel growth, CB2, CBD

psychedelics 3/12:
DMT

N,N-dimethyl-tryptamine



- plants, e.g. acacia, reed canary grass; "pineal gland*" -> lung
 - 'Ayahuasca' decoction contains MAOI
 - strongest hallucinogenic effects
- duration: 15 mins (smoked/vaped) to few hours (IV, oral*)

DMT

- N,N-DMT: endogenous sigma-1 receptor ligand!
- HUN: important experiments between 1956-1968
- 'psychotomimeticum', „experimental psychosis”
- schizophrenia, alcoholism
- brain rehabilitation after stroke
- anti-inflammation, immunomodulation
- HUN: Dr Ede Frecska & Dr Attila Szabó (Debrecen)
- i.v. DMT: short/'extended", very strange!

Szabo, A., Kovacs, A., Frecska, E., & Rajnavolgyi, E. (2014). Psychedelic N,N-Dimethyltryptamine and 5-Methoxy-N,N-Dimethyltryptamine Modulate Innate and Adaptive Inflammatory Responses through the Sigma-1 Receptor of Human Monocyte-Derived Dendritic Cells.

psychedelics 4/12: ***ibogaine***

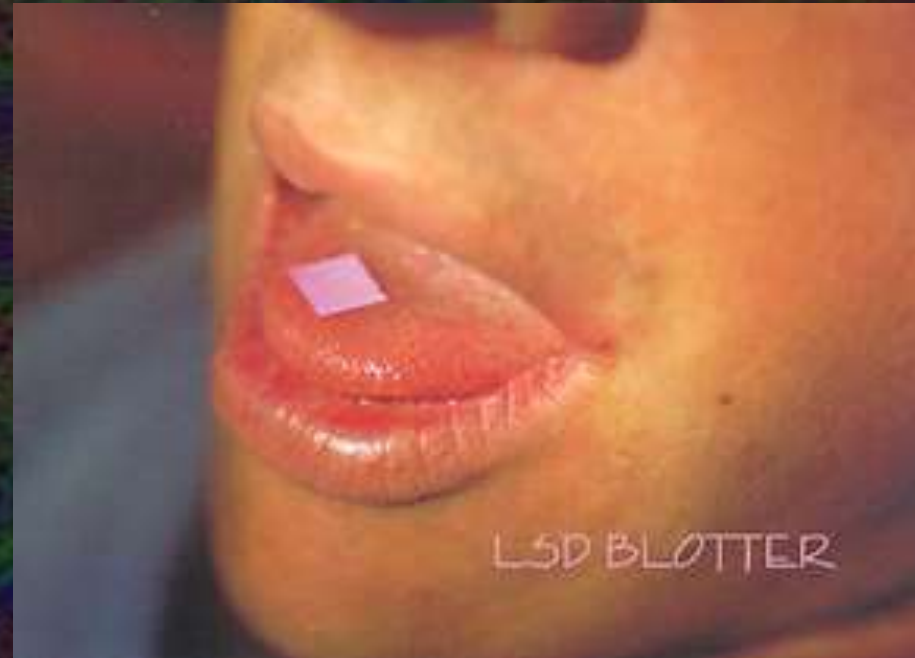
- *Tabernanthe iboga*, Western African shrub
- Bwiti ceremonies (rites of passage)
- one or few times therapy
- stops craving for opioids!
- opiates, non-opiates, stimulants, cannabis
- 60+% abstinence
- 1-2 week retreats (relapse in old environment)

Schenberg, E. E., de Castro Comis, M. A., Chaves, B. R., & da Silveira, D. X. (2014). Treating drug dependence with the aid of ibogaine: A retrospective study.

psychedelics 5/12:
ketamine

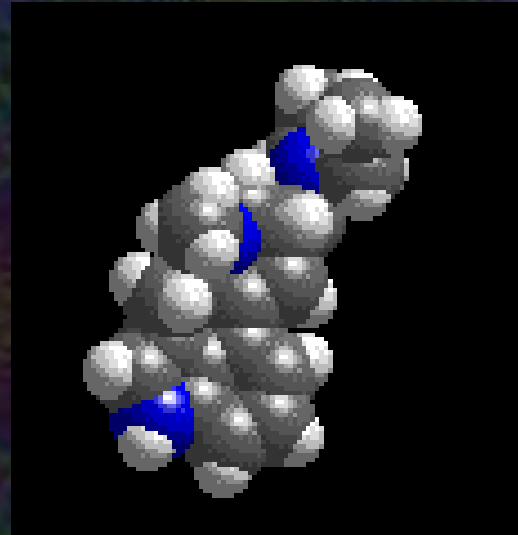
- "horse tranquiliser" :)
- dissociative anesthetic
- separation of body(feeling) and mind
- higher dose: "K-hole"
- recently as antidepressant
- therapy-resistant depression
- in Debrecen: Kenézy hospital (treatment protocol)
- in Budapest: Semmelweis University (experimental)
- ketamine-clinics already opened worldwide

psychedelics 6/12:
LSD



LSD

d-lysergic acid diethylamide



- semi-synthetic ergot derivative
- most known and studied hallucinogen
- more than 40000 subjects/patients
- more than 1000 scientific publications
- duration: 8-12 hours

LSD

- revolution in psychiatry?
- serotonin neurotransmitter system
- serotonergic and (later) dopaminergic!
- psycholythic and psychedelic therapies
- 2012 meta-analysis: efficient in treating alcoholism
- end-of-life anxiety

Krebs, T. S., & Johansen, P.-Ø. (2012). Lysergic acid diethylamide (LSD) for alcoholism: meta-analysis of randomized controlled trials

psychedelics 7/12:
MDMA



MDMA

- „empathogen“, „entactogen“
- MAPS: clinical studies (-2023?)
- most clinical studies, results ready!
- PTSD!
- war veterans, victims of sexual violence
- MDMA psychotherapist trainings have started
- therapy series, sessions of a few hours

Carhart-Harris, R. L., Wall, M. B., Erritzoe, D., Kaelen, M., Ferguson, B., De Meer, I., . . . Nutt, D. J. (2013). The effect of acutely administered MDMA on subjective and BOLD-fMRI responses to favourite and worst autobiographical memories.

psychedelics 8/12:
muscimol

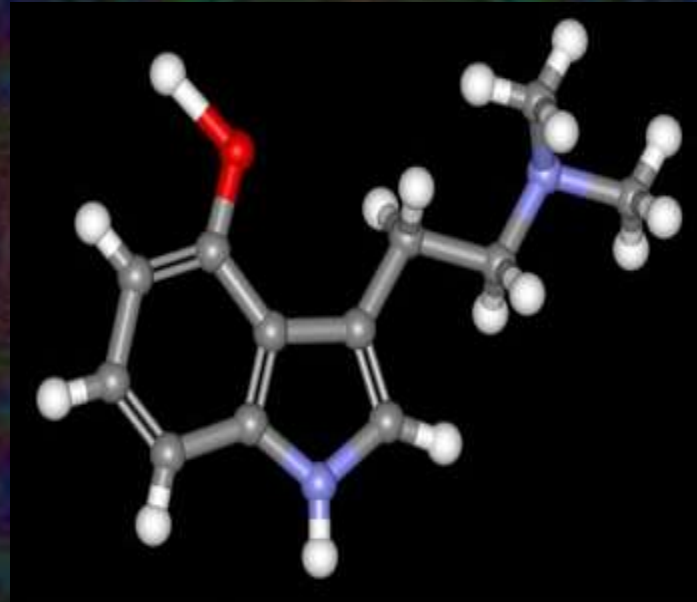
- an active component of fly agaric mushroom (*Amanita muscaria*)
- GABA_A receptor agonist
- decreases self-dosing of alcohol (in animal studies)
- aid to psychotherapy...?

psychedelics 9/12:
psilocybin



psilocybin

4-hydroxy-dimethyl-tryptamine



- Psilocybe mushrooms
- traditional use in Mexico
- duration: 4-6 hours

psilocybin

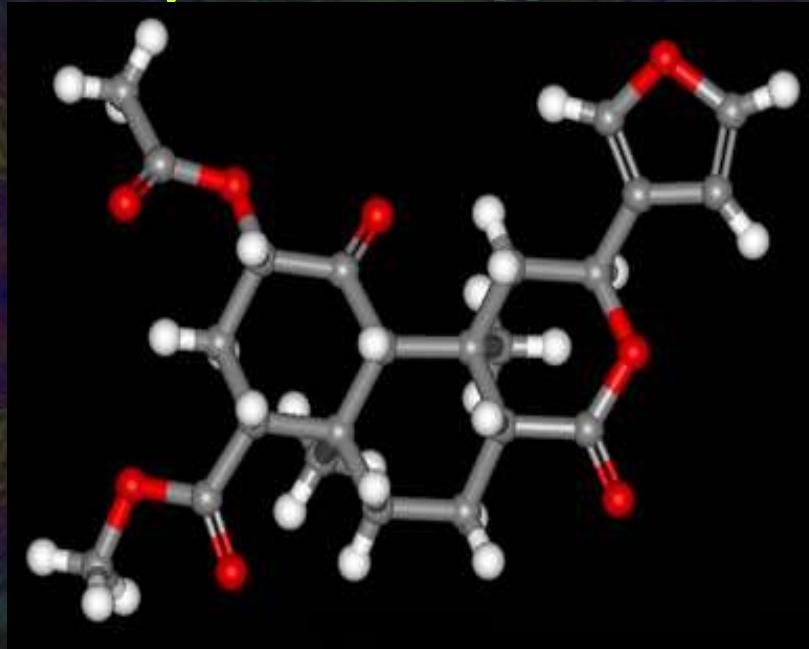
- also serotonergic
- shorter duration, easier to handle than LSD
- hospice: acceptance of death (spiritual trip)
- promising results in treating alcohol dependence
- successful experiments for tobacco smoking cessation
- OCD symptom alleviation

psychedelics 10/12:
salvinorin A



salvinorin-A

(2S,4aR,6aR,7R,9S,10aS,10bR)-methyl-9-acetoxy-2-(furan-3-yl)-6a,10b-dimethyl-4,10-dioxo-dodecahydro-1H-benzo[f]isochromene-7-carboxylate



- cultigen Mexican mint
- Kappa opioid receptor agonist
- changes in space/time/body perception, entity encounters
- duration: a few minutes (smoked) to a few hours (oral chewed)

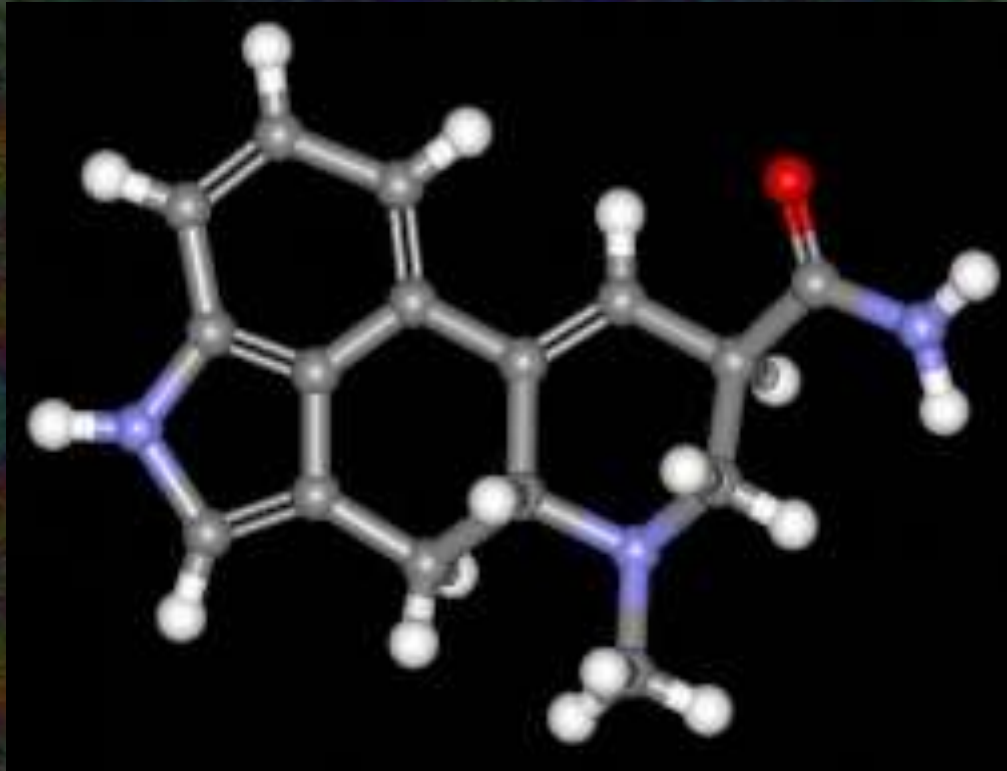
salvinorin-A

- depersonalisation, derealisation, dysphoria
- antiaddictive? (psychostimulants)
- neuroimaging experiment 2020
- consciousness research: space/time/body perception changes
- entity encounters

psychedelics 11/12:
LSA



LSA



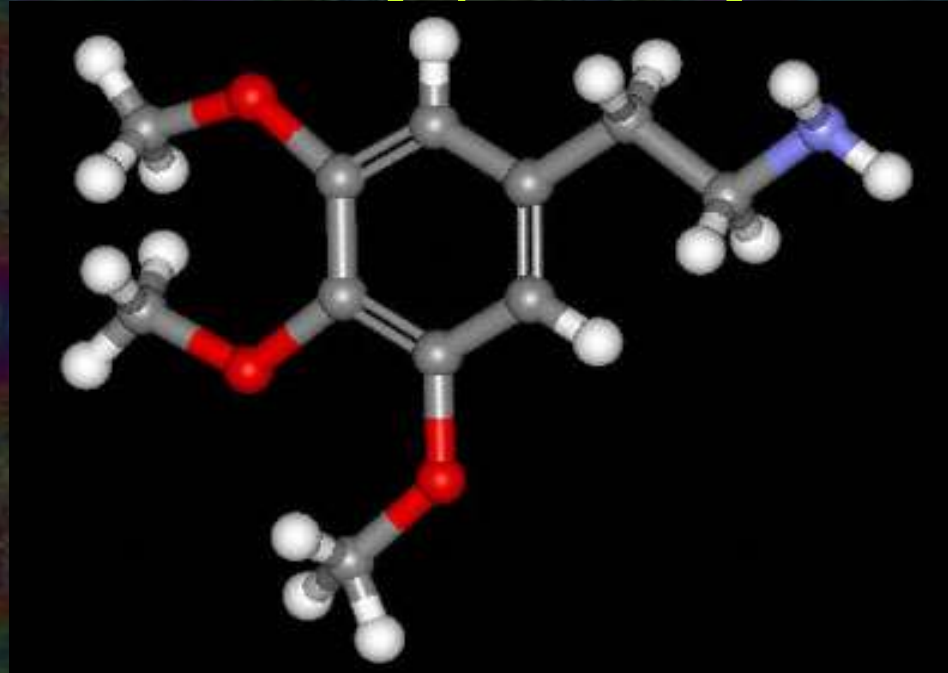
- plant seeds, e.g. morning glory, Hawaiian baby woodrose
- seeds may cause vasoconstriction and nausea
- precursor of LSD
- duration: 4-8 hours

psychedelics 12/12:
mescaline



mescaline

3,4,5-trimethoxy-phenethylamine



- cactus alkaloid (Peyote and San Pedro)
- 250 000 members of Native American Church: sacramental use
- Aldous Huxley: "The Doors of Perception"
- duration: 3-6 hours

Thank you for your attention!



Next lecture:

[05] Psychology of Psychedelic Experience

Oct 14 Thursday 10:45