

Bilinci Etkileyen İlaç ve Maddeler

Doç. Dr. Yıldırım SARA
Hacettepe Üniv.
Framakoloji AbD



Neden insanlar bilinç durumlarını değiştirmek isterler?

- İnsanlık tarihinde hep var olmuşlardır
- İntoksikasyon 4. temel dürtüdür?
 1. Hayata kalma,
 2. Açlık, susuzluk,
 3. Üreme
 4. İntoksikasyon
- Kutsal ritüeller
- Sosyal etkileşimler
- Kişisel ödüllendirme
- Eğlence (recreational)
- Askeri (İstikbarat, savaşlarda)
- Unutmak/kurtulmak için
 - Sıkıntı
 - Uyum sorunları
 - Kendine güven
 - Obje kayıpları



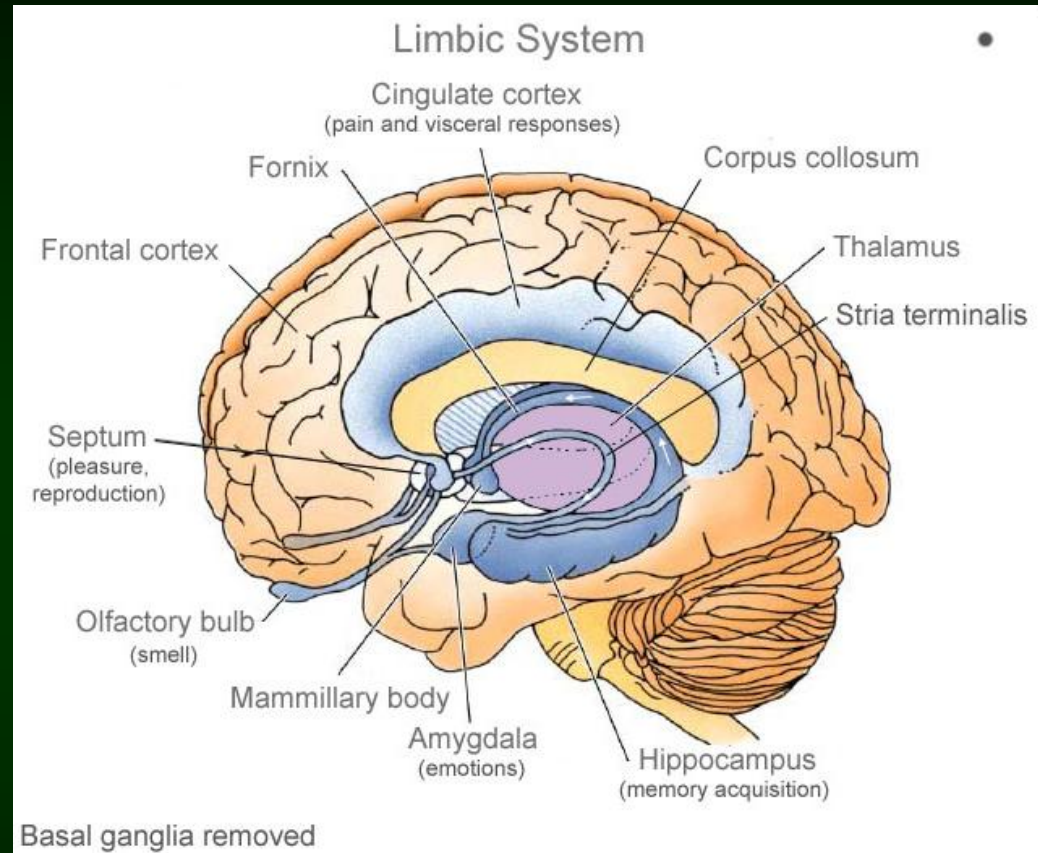


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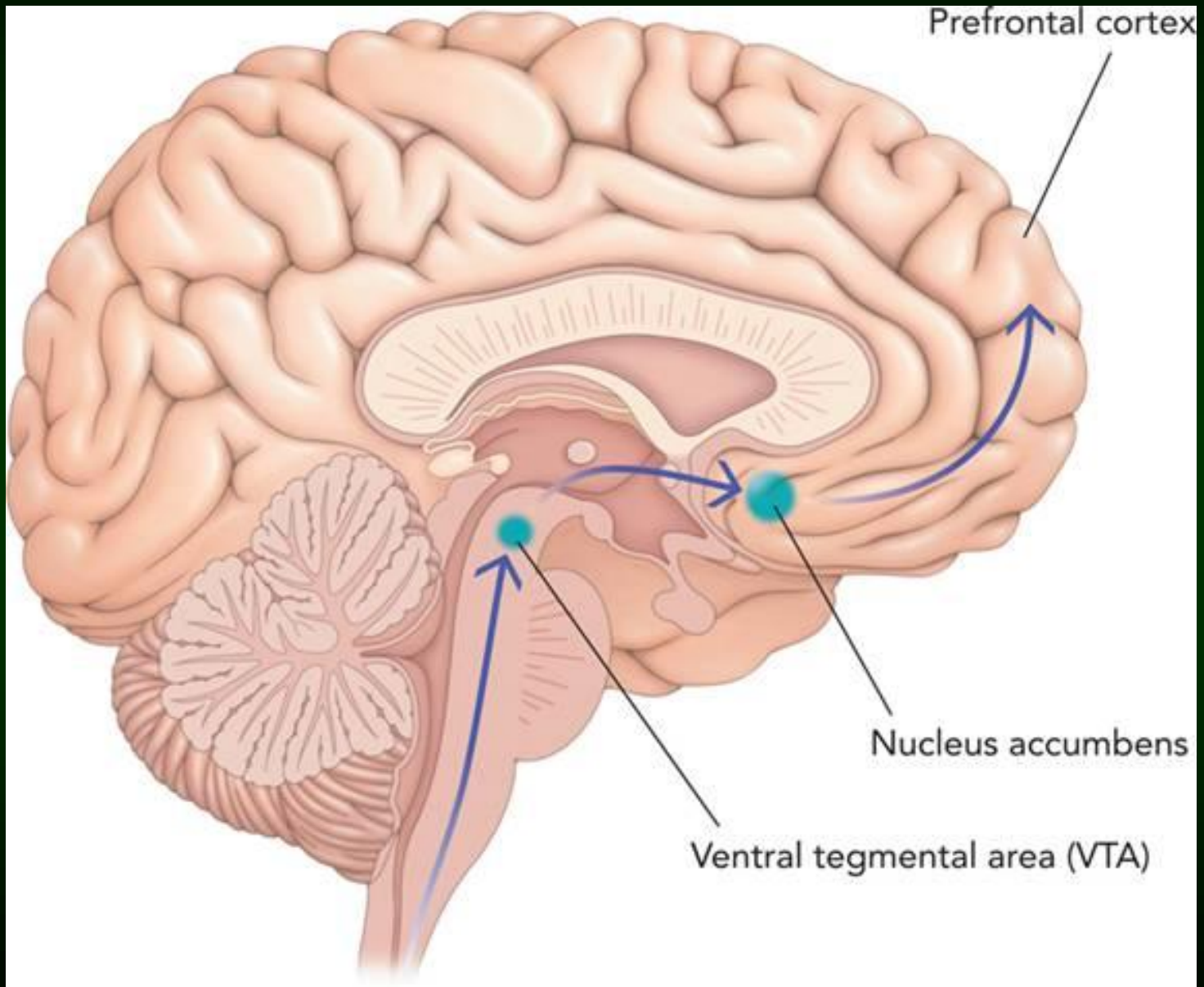
Zevk ve Ödül Sistemleri

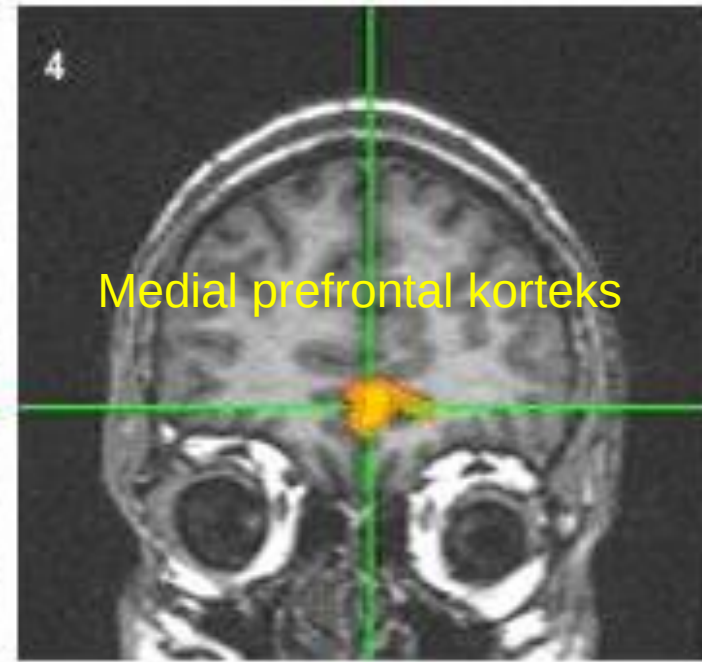
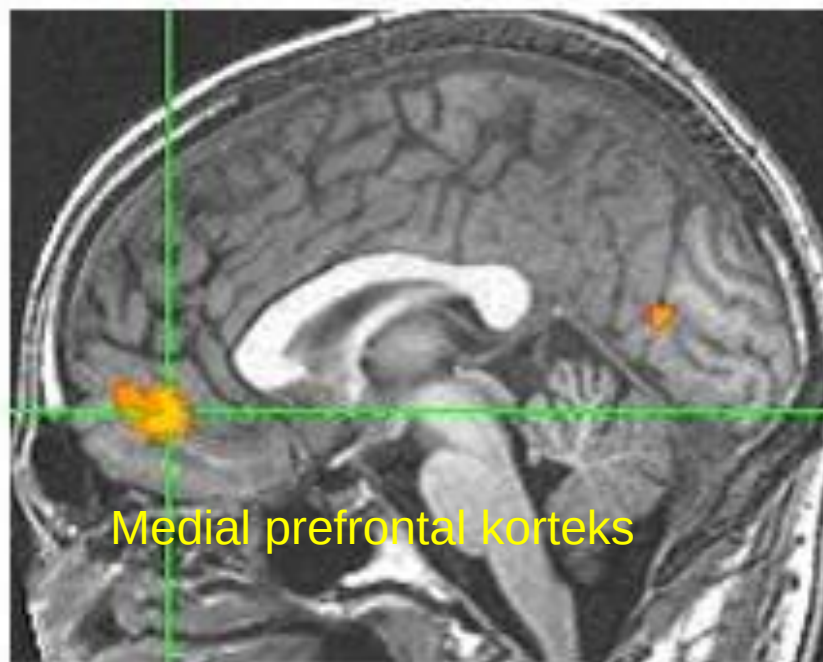
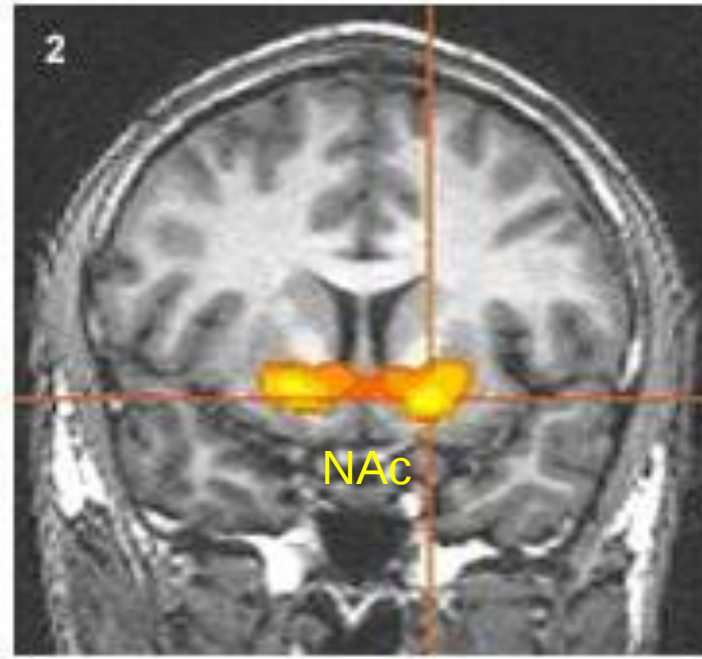
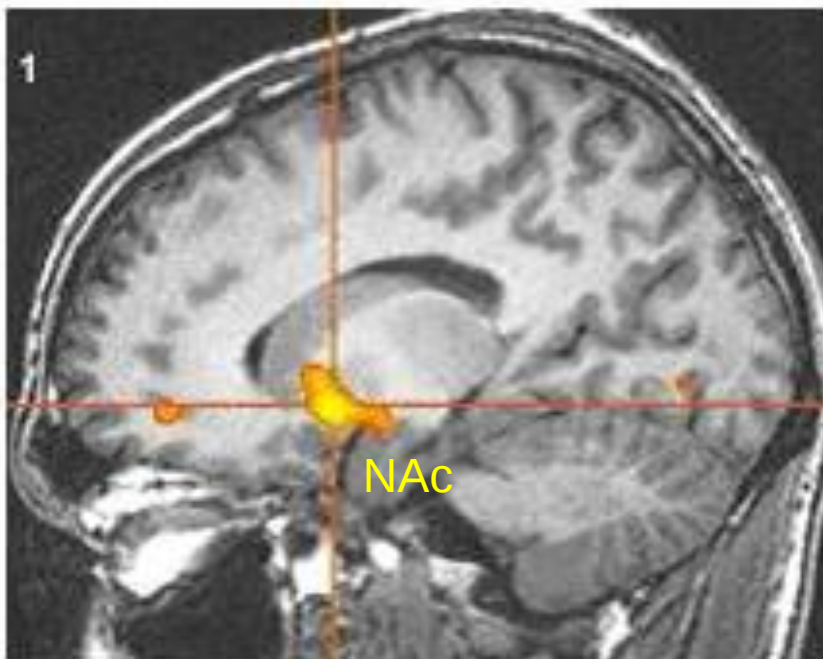
- Ventral tegmental bölge (VTA)
- Nükleus akumbens (NAc)
- Limbik bölge
- Prefrontal korteks
- Dopaminerjik sistem



Üreme davranışlarını kontrol eder
Hayvanların üreme ile ilgilenmeleri için mi
gelişmiştir?
Üreme ilaçlardan önce bile vardı!

Zevk ve Ödül Sistemi





Prefrontal
Cortex

Nucleus
Accumbens

Ventral Pallidum

Amygdala

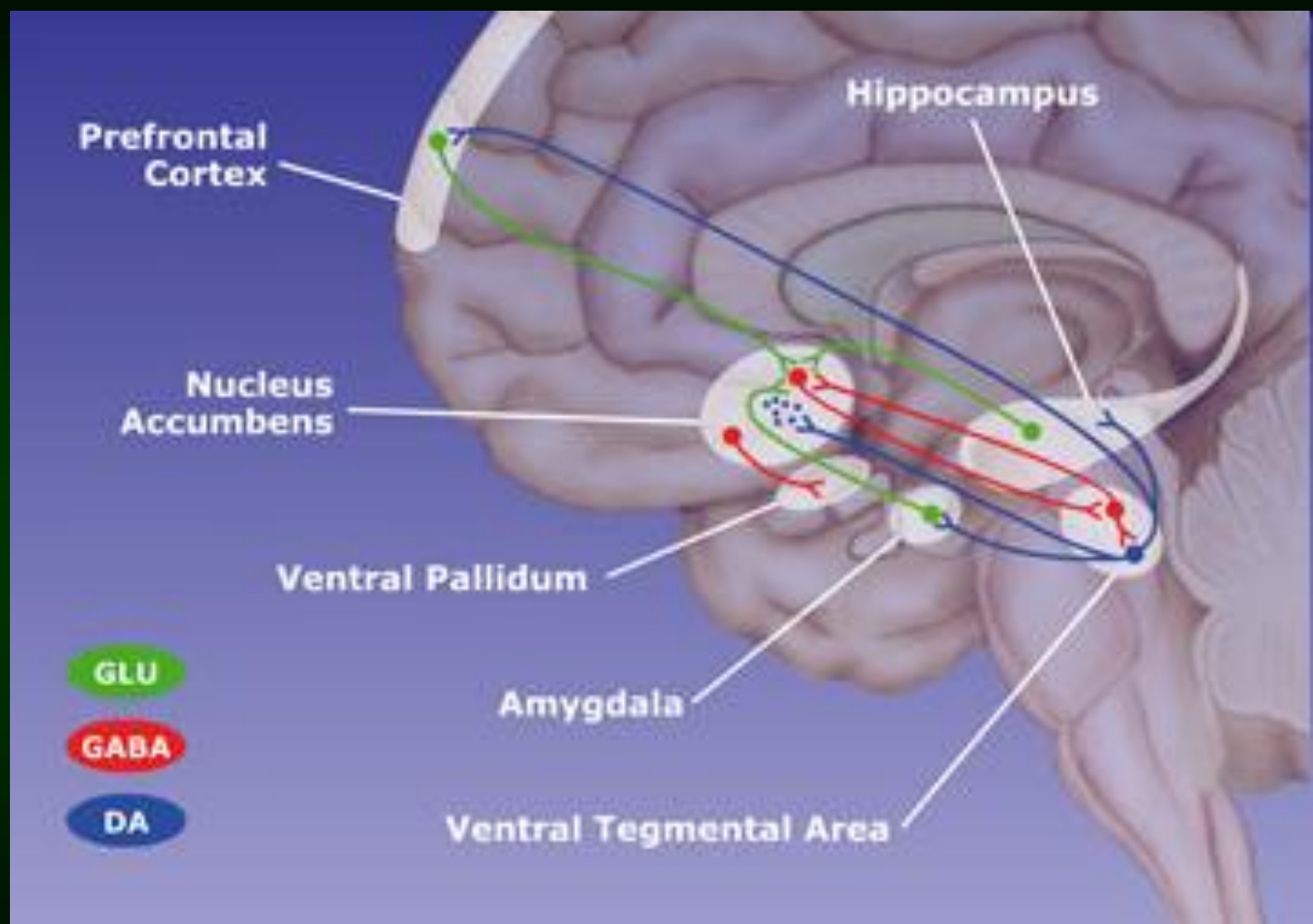
Ventral Tegmental Area

Hippocampus

GLU

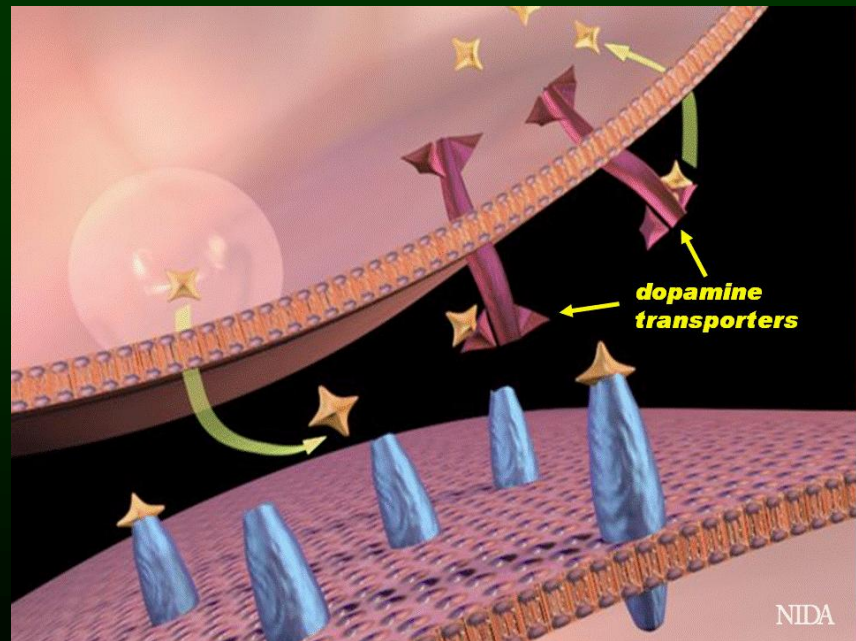
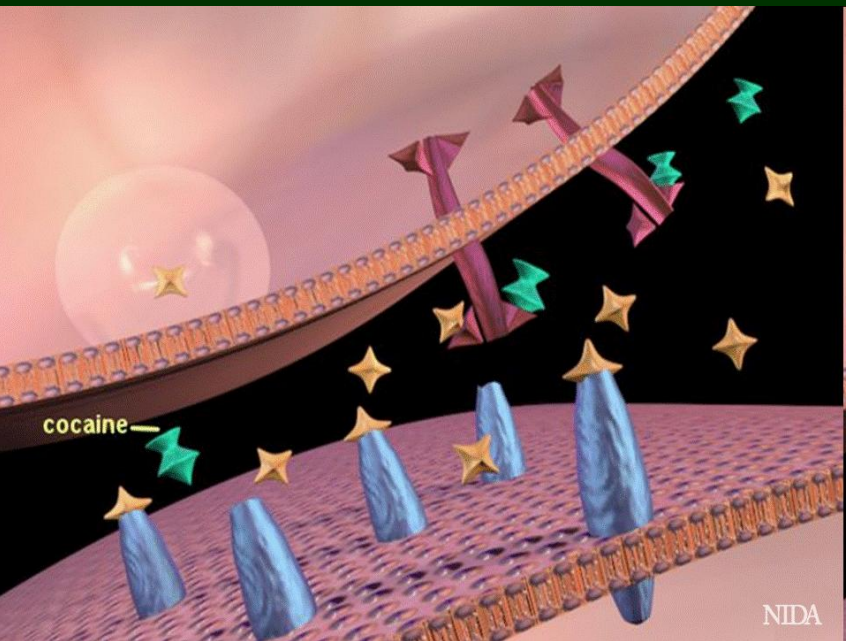
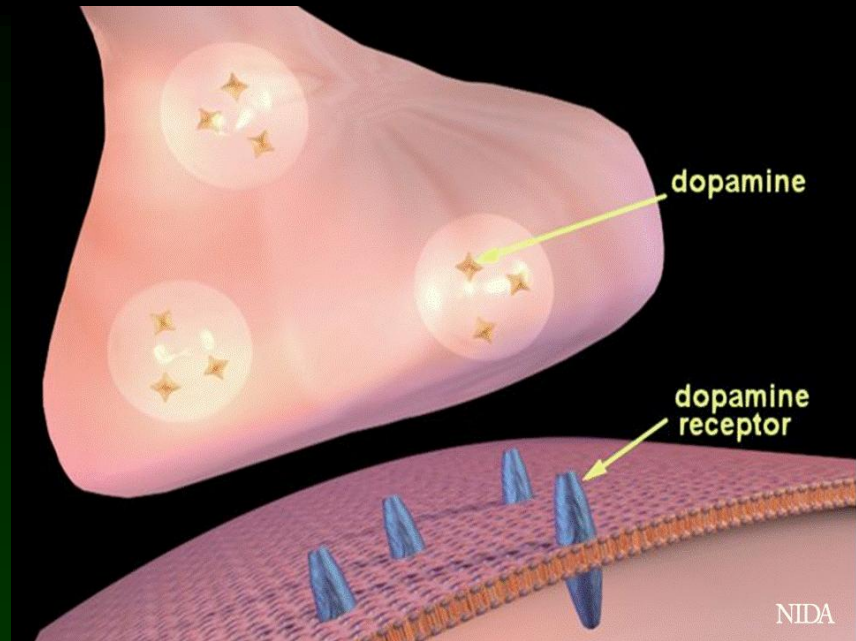
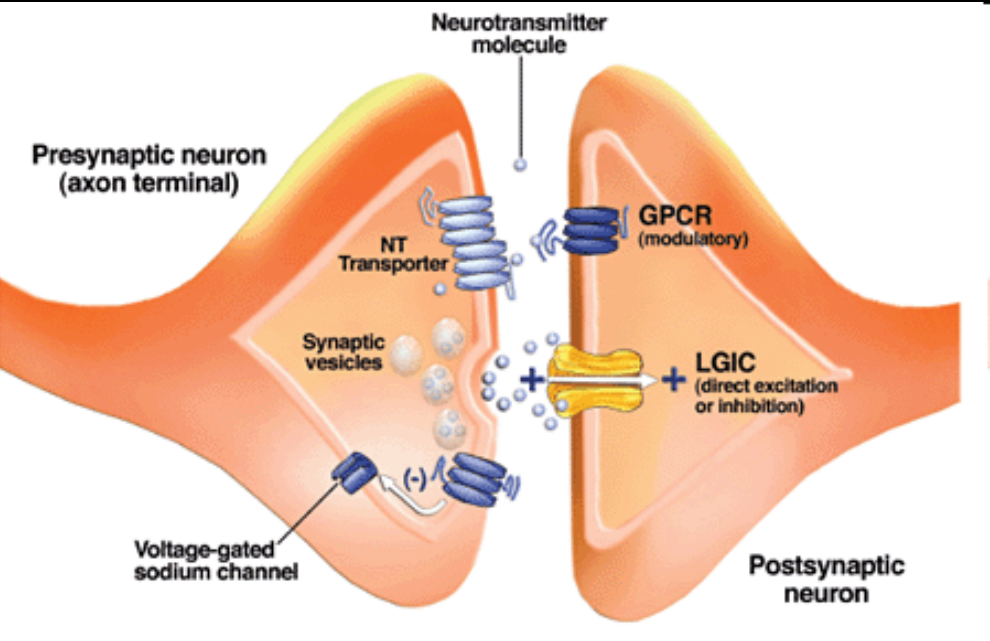
GABA

DA



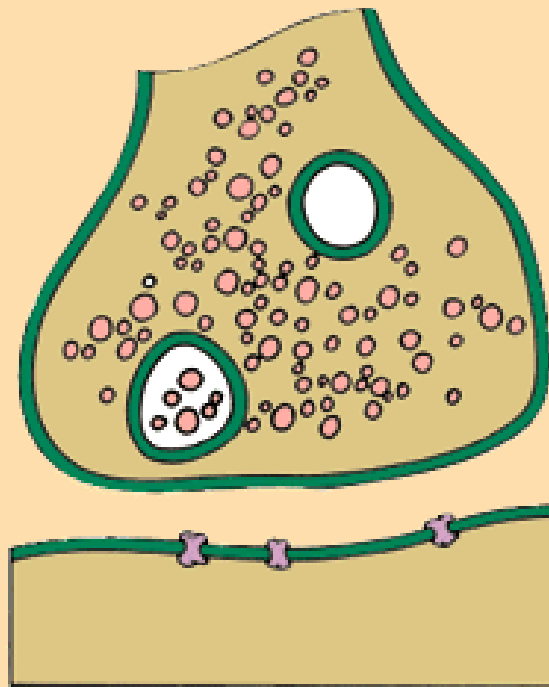
Aşk Hormonu: Oksitosin?

- Aşk ile de ilgili bir hormon
- Opiod benzeri etkiler
- Doğal sakinleştirici
- Kadınların başkalarının hislerine daha hassas olmalarını sağlar
- Cinsel ilişki sırasında veya dokunma ile salıverilebilir
- NAc → Dopamin → Öfori
- Psikotrop ilaçlar da?

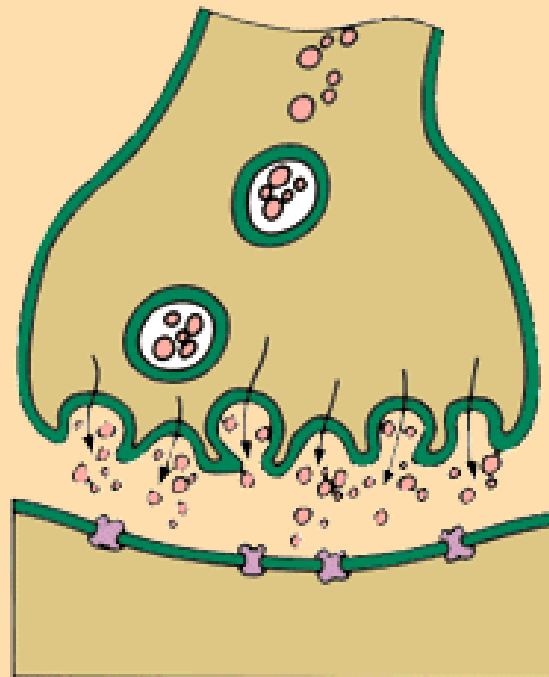


How Drugs Affect Synaptic Transmission (Part I)

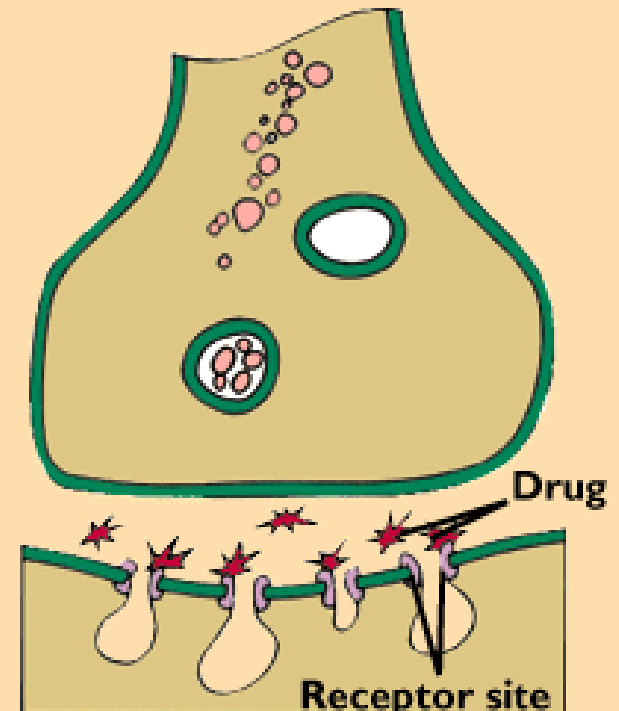
Agonistic Effects



Drug induces increase
in synthesis of
neurotransmitter



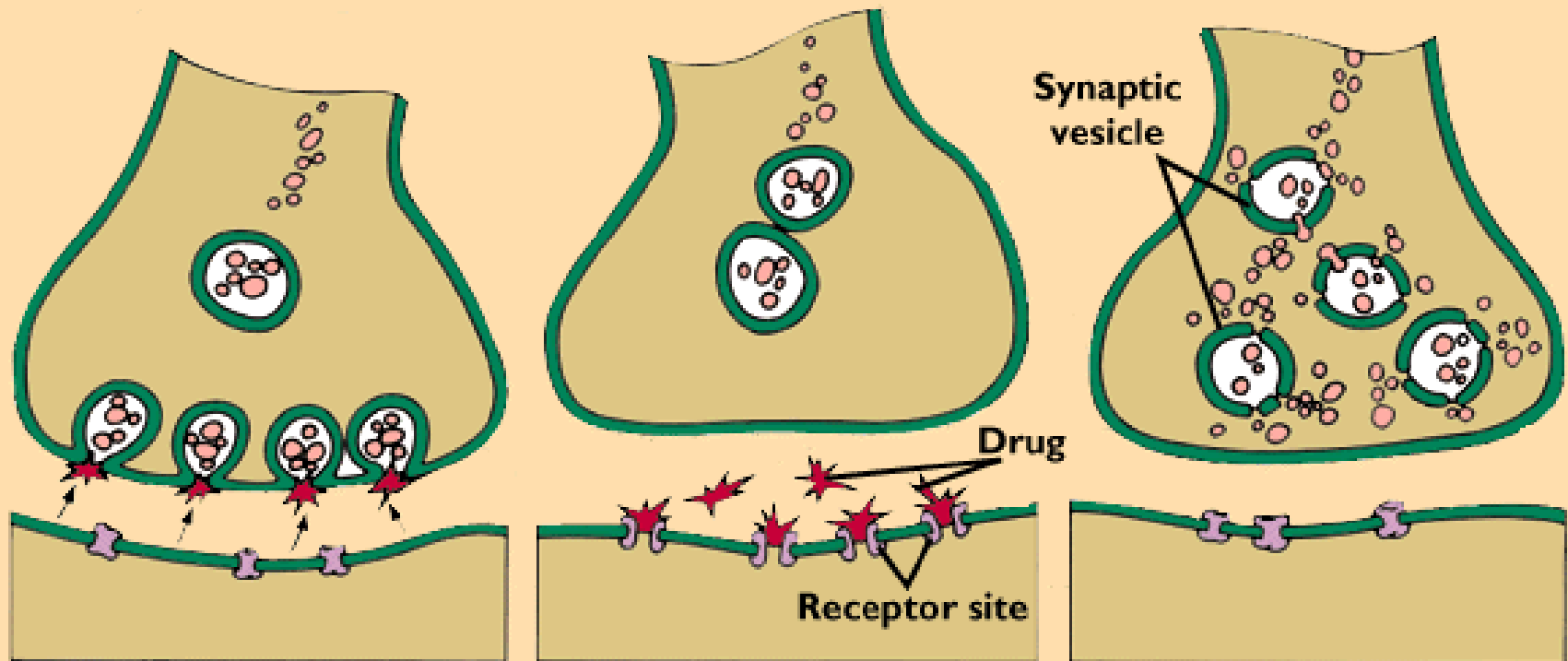
Drug increases release
of transmitter



Drug activates receptors
that normally respond to
neurotransmitter

How Drugs Affect Synaptic Transmission (Part II)

Antagonistic Effects

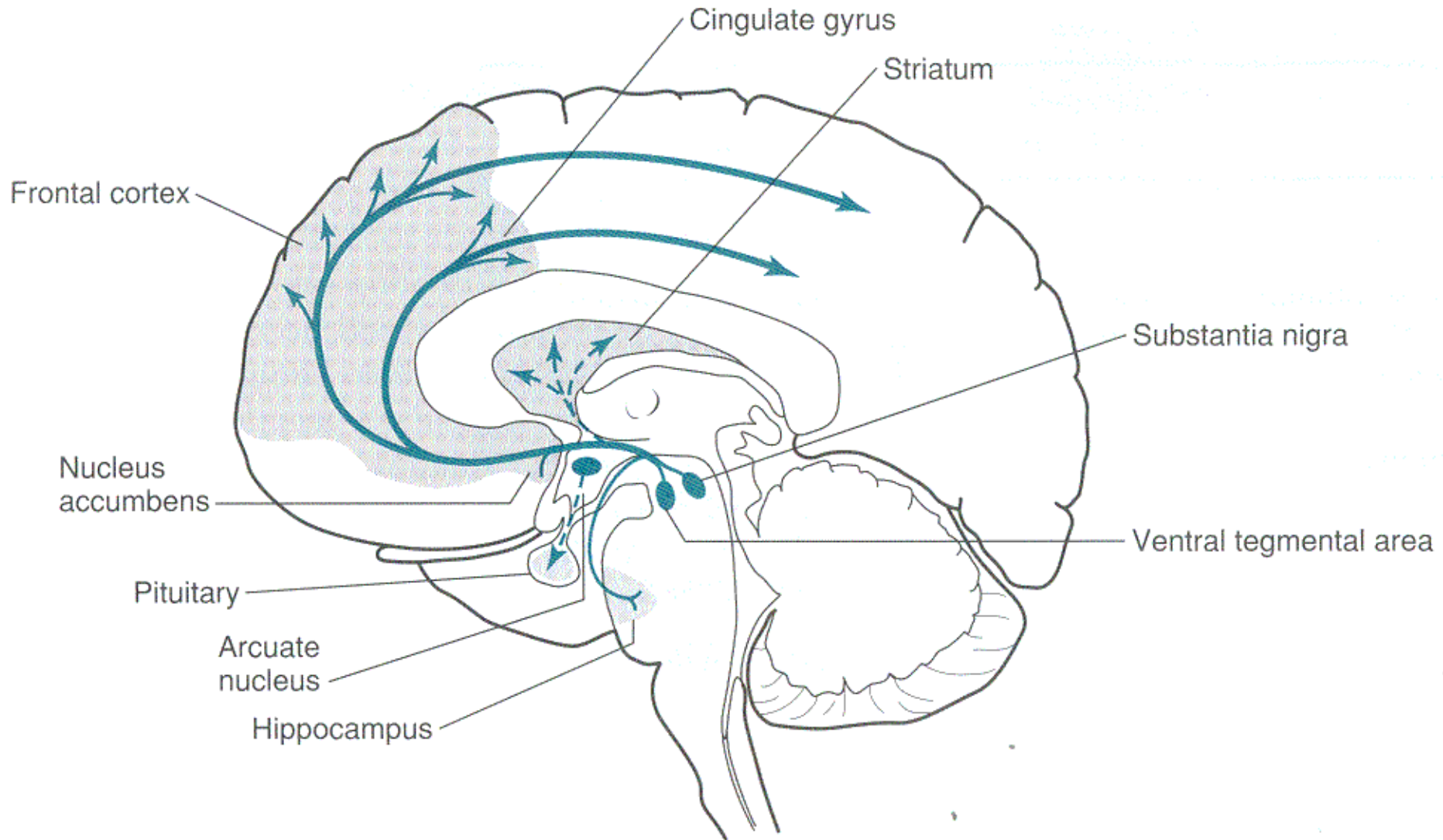


Drug interferes with release of neurotransmitter

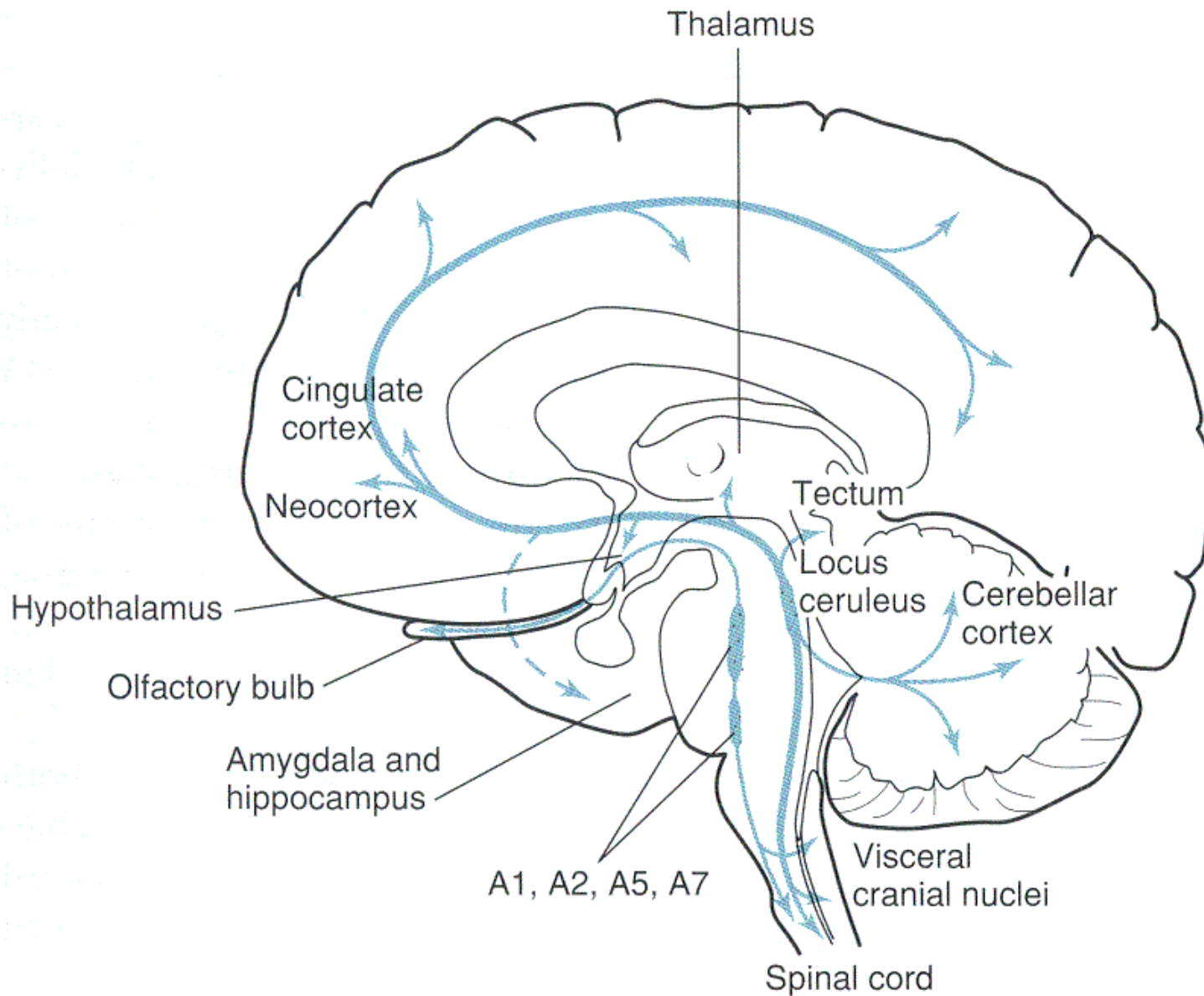
Drug acts as false transmitter, occupying receptor sites normally sensitive to neurotransmitter

Drug causes leakage of neurotransmitter from synaptic vesicles

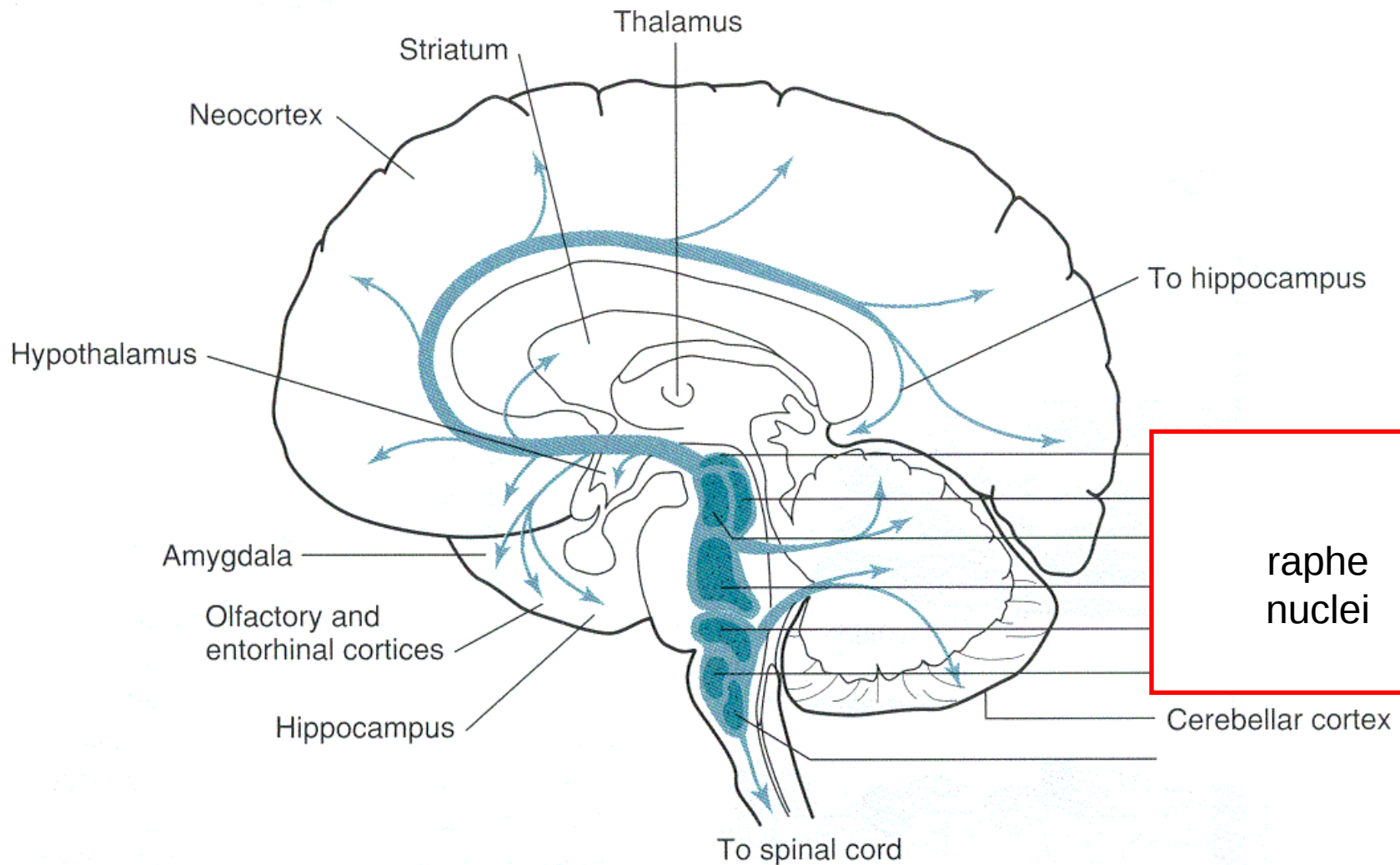
Dopamin



Noradrenalin

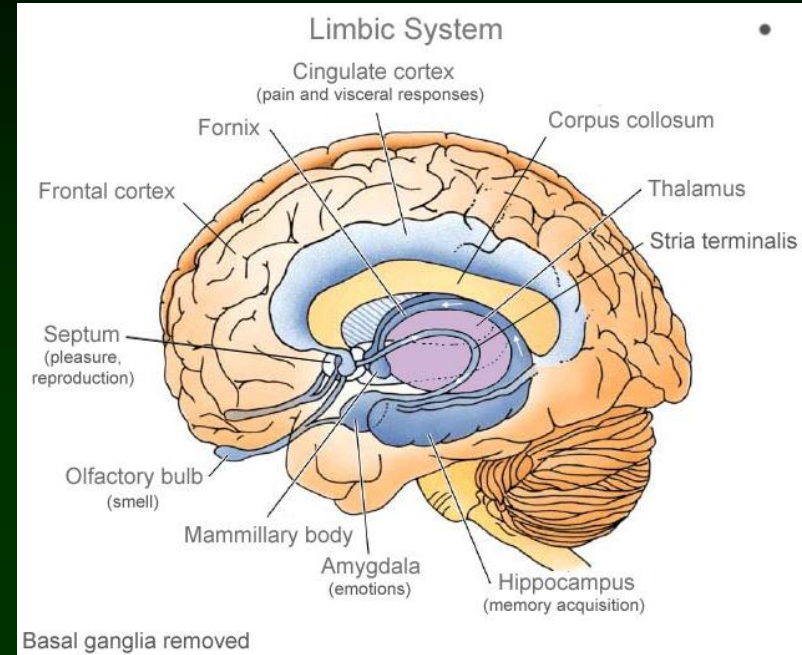


Serotonin



İlaçlar ve Bölgelerdeki Etkileri

- **Thalamus:** Halüsinasyonlar, bozulmuş karar verme yetisi
- **Hipotalamus:** Bulantı, azalmış iştah
- **Amigdala:** Aşırı duygulanım, endişenin geçmesi
- **Hipokampus:** Bozulmuş karar verme yetisi
- **Pons:** Zamanın yavaşlaması, öfori (gevşeme), dikkat/uyanıklıkta artış, uyuşukluk
- **Serebelum:** Kasların gevşemesi, tremorlar
- **Medulla:** Artmış kalp hızı, koma, ölüm



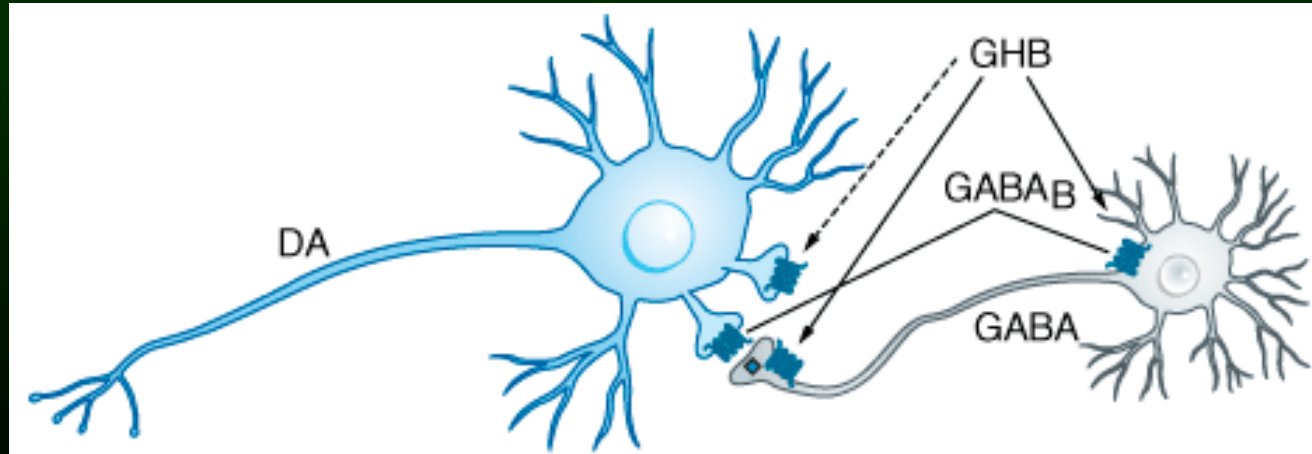
Psikoaktif İlaçlar

- Depresanlar
- İnhalanlar
- Opioidler (Narkotikler)
- Uyarıcılar (Stimülanlar)
- Halüsinojenler (Psychedelics)
- Antipsikotikler
- Antidepresanlar
- Anestezikler



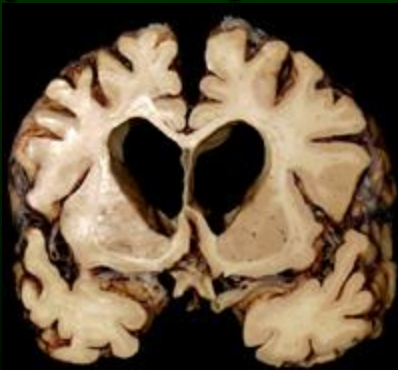
Depresanlar

- *SSS fonksiyonlarını deprese eder*
- Sinirsel aktiviteyi azaltır
- Vücut fonksiyonlarını yavaşlatır
- Gevşetici, sakinletirici
- Amnezi, endişenin azalması, uyku
- Benzodiazepinler
 - Barbituratlar
 - GHB (Gama-Hidroksibutirat)
 - Antihistaminikler
 - Alkol
 - Esrar



Alkol

- Öfori, gevşeme, azalmış inhibisyon
- Yavaşlamış sinirsel işlem gücü
- Bellek fonksiyonlarında bozulma
 - Beyinin küçülmesi



Alcohol Consumed	Neural Representation	Behavioral Effect
2 ounces 90 proof whiskey .05% blood alcohol		Affects higher nervous centers; drinker loses inhibitions, forgoes conventions and courtesies, relaxes
6 ounces 90 proof whiskey .15% blood alcohol		Affects deeper motor areas; drinker staggers, has slurred speech, is overconfident, acts on impulse
10 ounces 90 proof whiskey .25% blood alcohol		Affects emotional centers of midbrain; drinker has impaired motor reactions and unsteady gait; sensations are distorted; drinker tends to see double, to fall asleep
16 ounces 90 proof whiskey .4% blood alcohol		Affects sensory area of cerebellum; senses are dulled; drinker is in stupor
24 ounces 90 proof whiskey .6% blood alcohol		Affects perceptual areas; drinker loses consciousness; only functions of breathing and heartbeat remain
32 ounces 90 proof whiskey .8% blood alcohol		Affects entire brain; heartbeat and respiration stop; death

İnhalan Maddeler

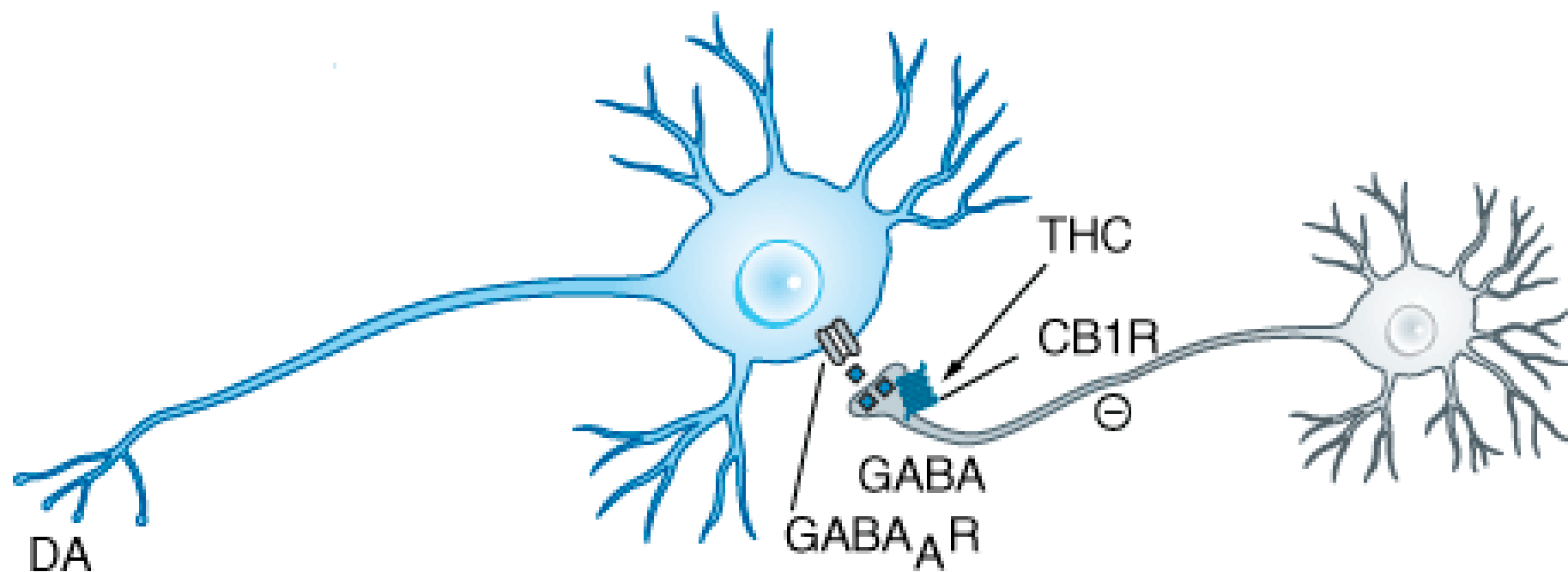
- Tiner, bazı çözücüler ve temizlik malzemeleri, yapışkanlar...toluen
- Öfori, eksitasyon
- Disinhibisyon
- Nitroz oksid
- Eter
- Amil nitrit



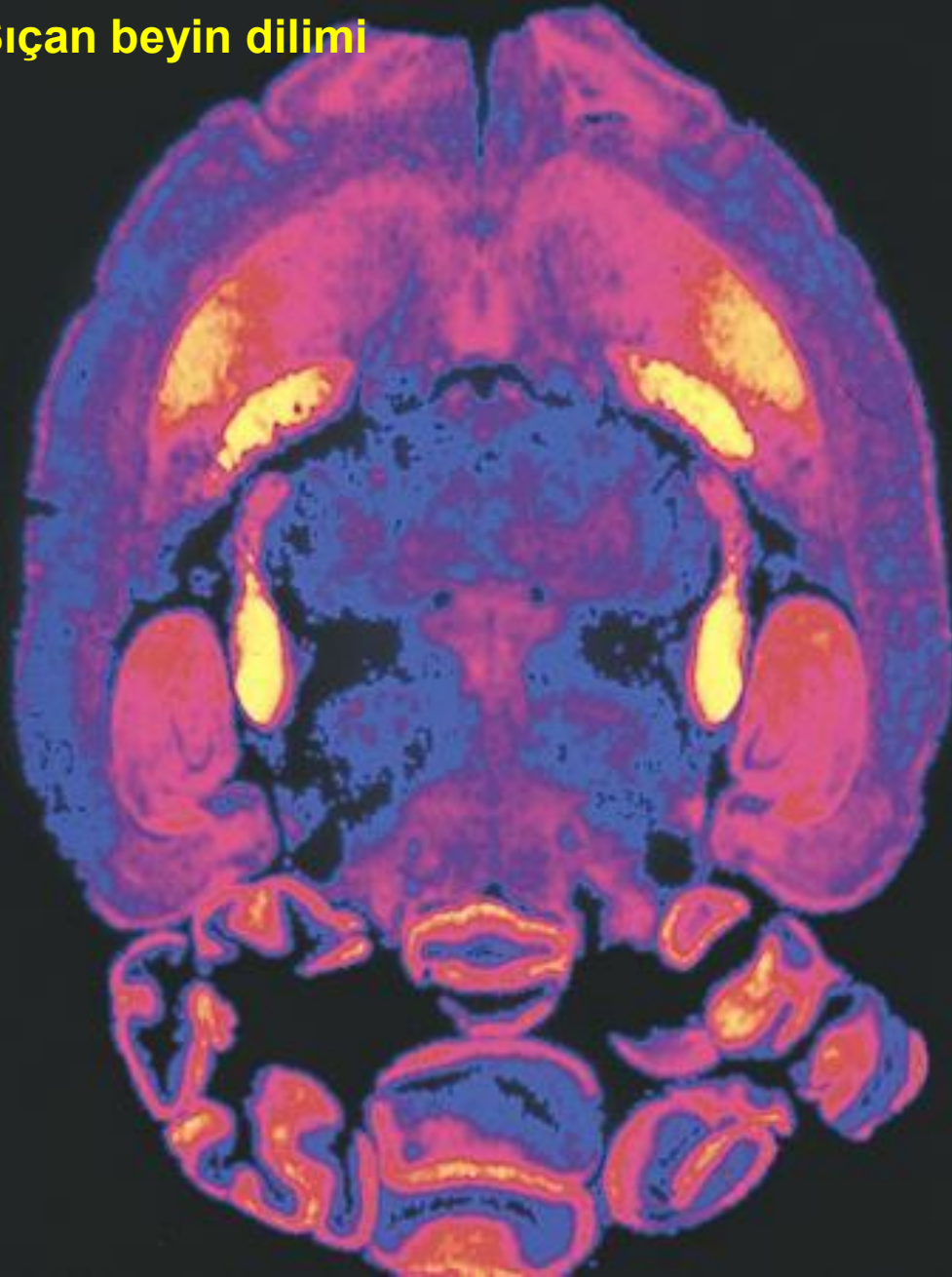
Esrar/Marihuana/Haşıhş



- Kannabis sativa
 - Bařlangıç ruh hali
 - İyi
 - Kötü (Bad trip)
- Tetrahidrobannabinol (THC)
- Anandamid
- Limbik sistem
 - Hipokampus
 - serebral korteks
- Serebrum
- Bazal ganglialar



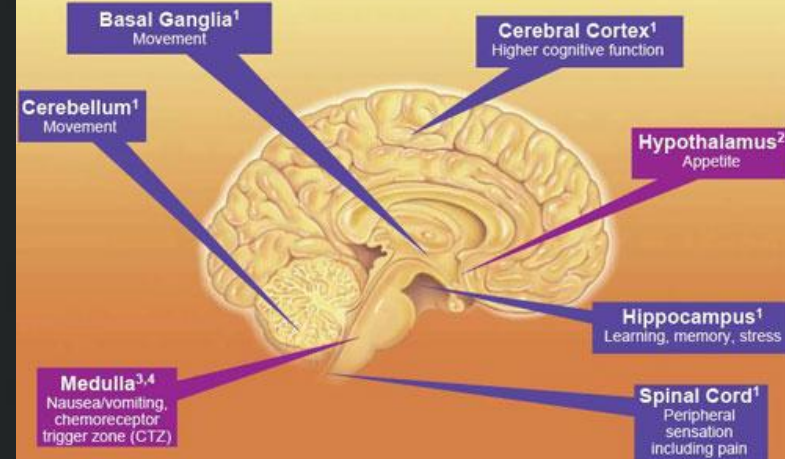
Sıçan beyin dilimi



Ağrı
Stres
Öğrenme

Yüksek doz THC
Paranoya
Halüsinasyonlar
Dengesizlik

Concentrations of CB₁ receptors

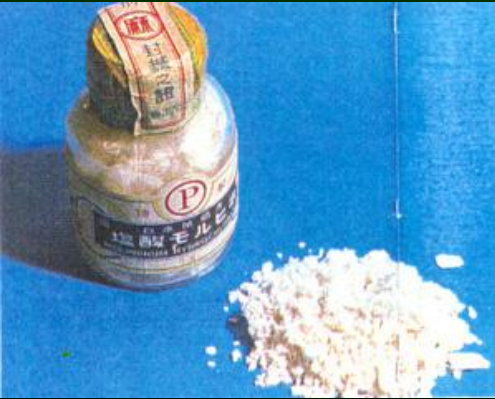


1. Joy JE, et al, eds. *Marijuana and Medicine: Assessing the Science Base*. Washington, DC: National Academy Press; 1999:33-61. 2. Martin BR, et al. *J Support Oncol*. 2004;2(4):305-316. 3. Grotenharmen F. *Curr Drug Targets CNS Neurol Disord*. 2005;4(5):507-530. 4. Navari RM, et al. *Expert Opin Emerg Drugs*. 2008;11(1):137-151.



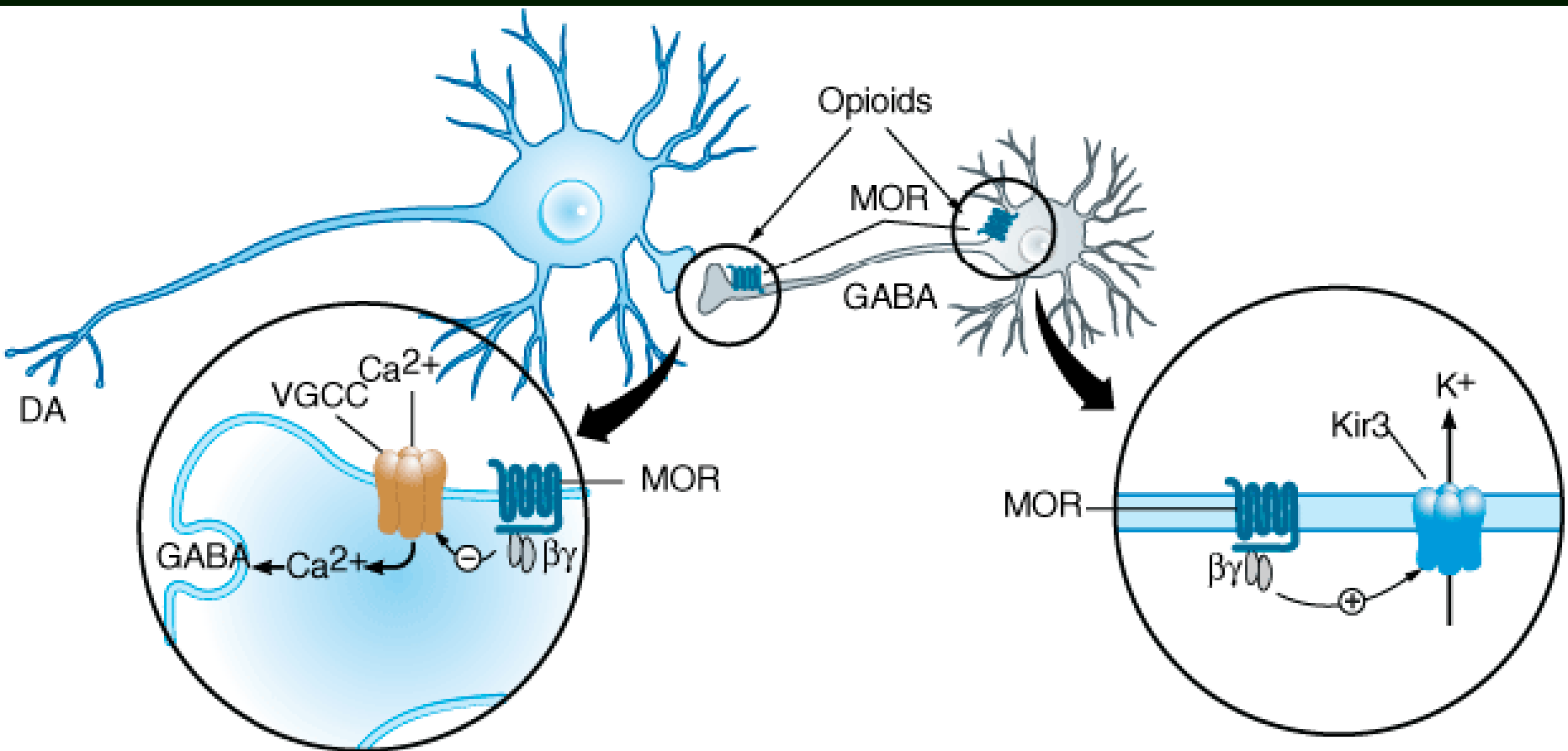
Opiooidler

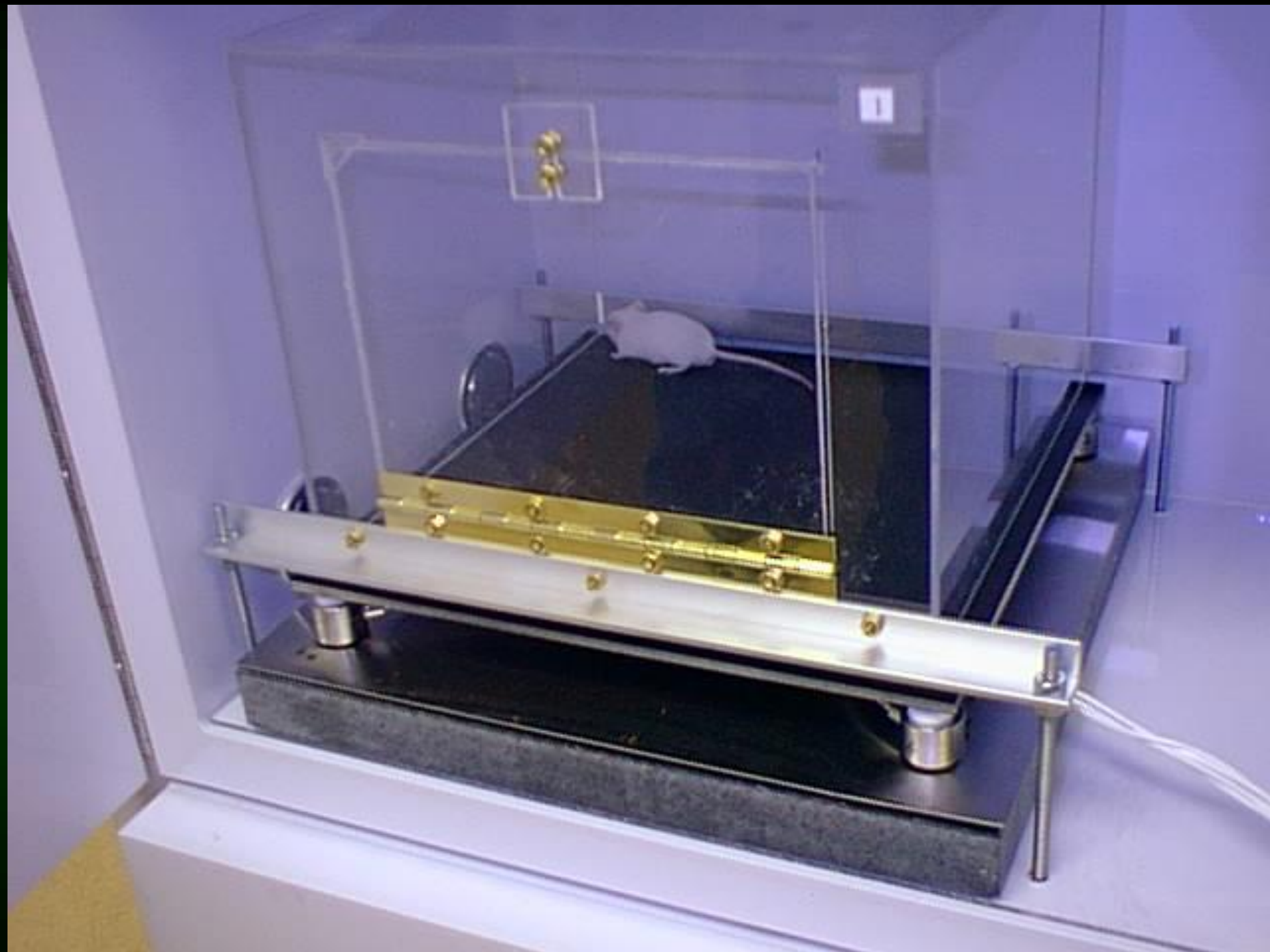
- Narkotikler, opium, morfin, eroin (4-6)
- Endorfinler
- Öfori (Uyku-uyanıklık arası)
- En güçlü ağrı kesici (Hep öfori...)



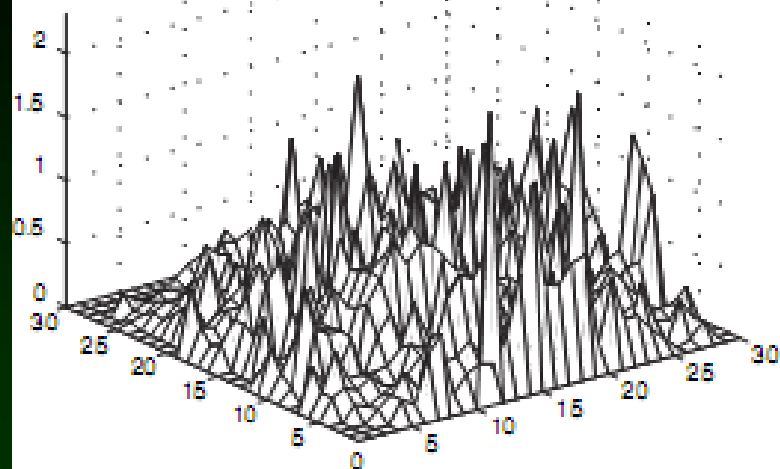
Papaver somniferum



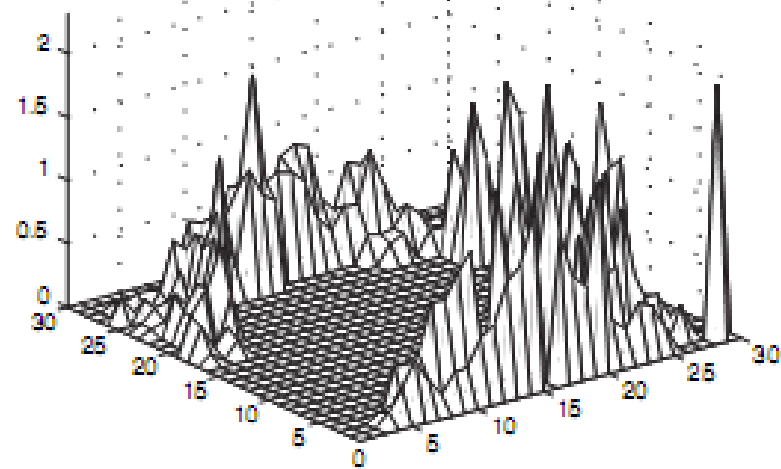




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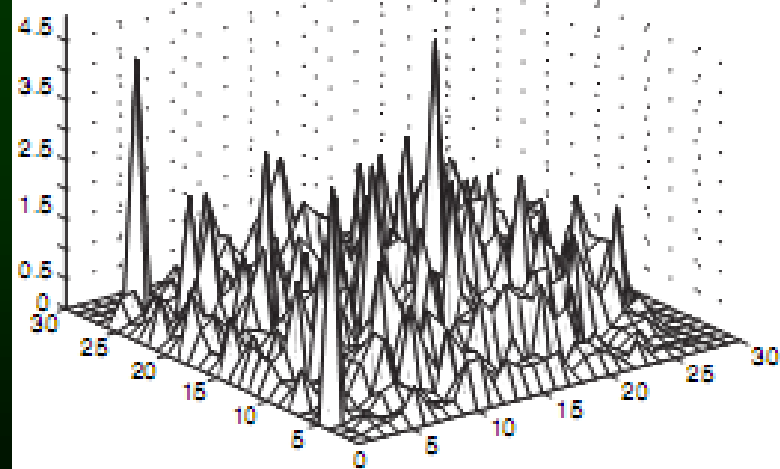


Naive

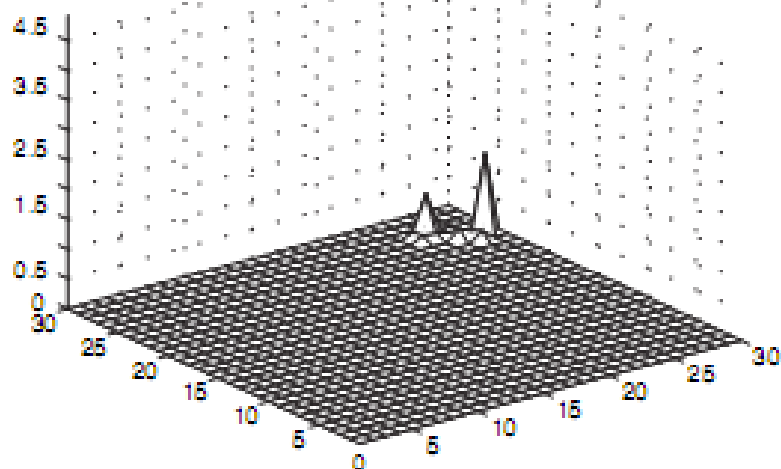


Diazepam

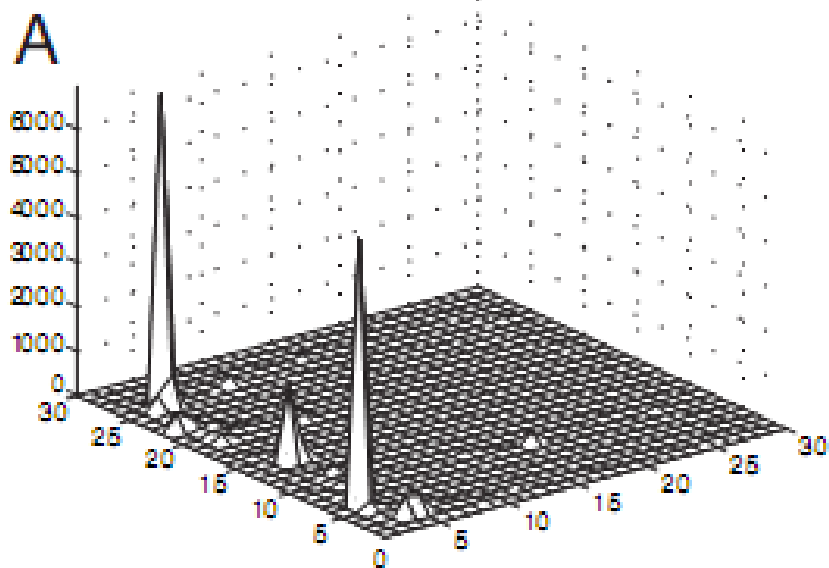
D



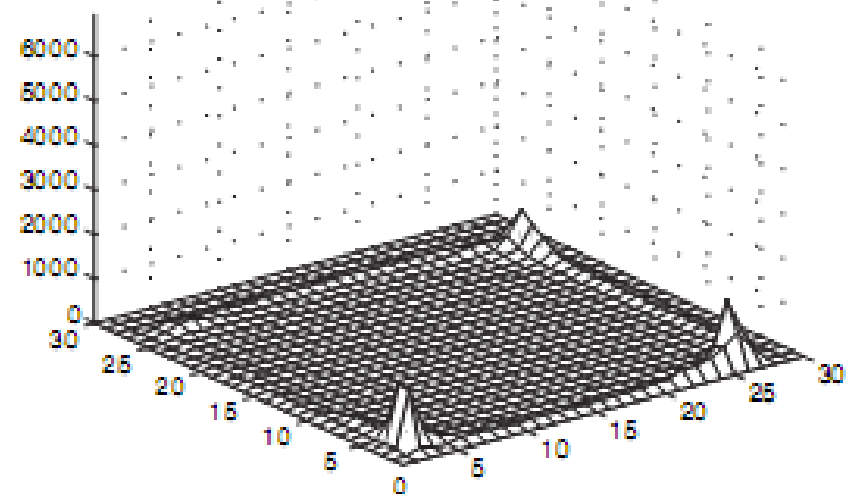
Naive



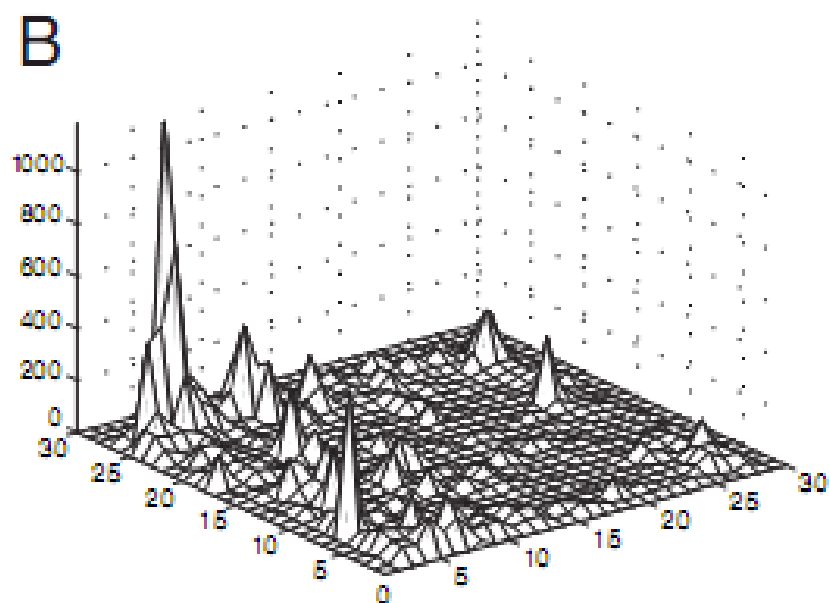
Morphine



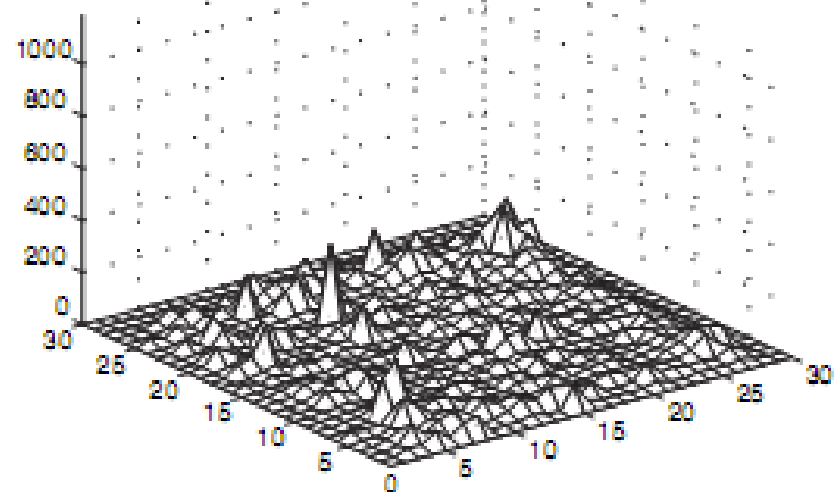
Naive



Amphetamine



Naive



Cocaine

Uyarıcılar (Stimülanlar)



- Kafein
- Nikotin
- Efedrin



- Amfetaminler
- Metamfetamin (Kristal met)
- MDMA (Ecstasy, klüp ilacı, metilenedioksimetamfetamin)
- Kokain “Crack”

Kokain

Peru & Colombia

Eritroksilon koka

Crack kokain



Metamfetamin

- Krystal meth, ice, speed
- Öfori
- Yoganluk ↓
- Kendine güven ↑
- Dikkat artışı
- Konuşkanlık
- Enerji artışı
- Uykusuzluk
- Sinirlilik
- Güvensizlik
- Stereotipi
- Halüsinasyon
- Psikoz



Ecstasy: Enerji + Öfori + Halüsinasyon



Halüsinojenler

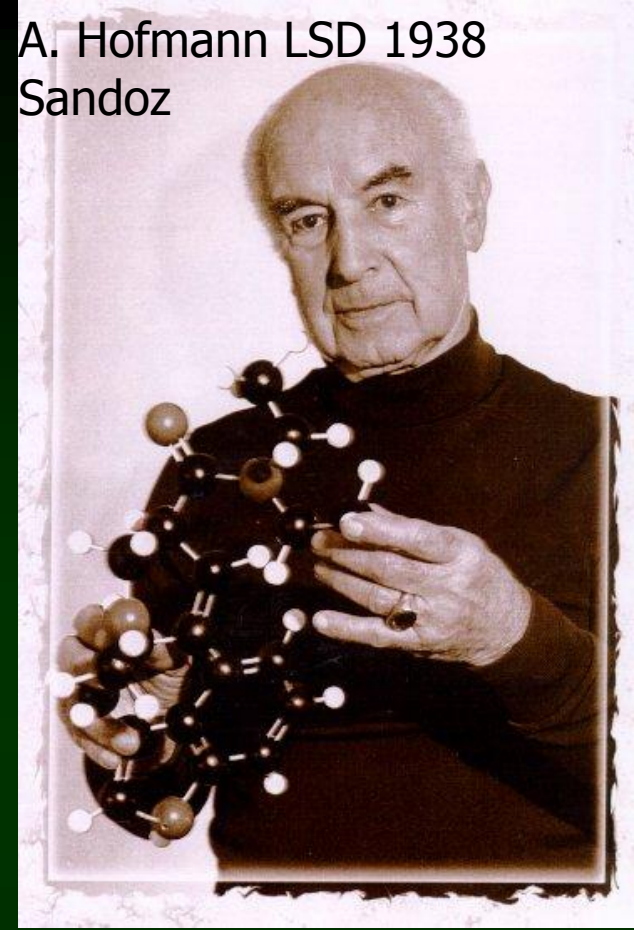
- Albert Hofmann, 1943
 - Halüsinasyonlar: Duyusal ve/veya algısal bozulmalar
 - Yolculuk!
 - İçgörü
-
- LSD
 - Meskalin (Peyote)
 - Psilosibin (sihirli mantarlar)
 - Ketamin
 - Fensiklidin (PCP, angel dust)
 - MDMA, marihuana
 - Belladonna



• LSD

- Artmış enerji
- Artmış ilişkendirme ve yaratıcı düşünce
- Artmış farkındalık ve müziğin takdiri
- Ruh halinin yükselmesi
- Duyuların (tat, koku...) artmış farkındalığı)
- Görüntüler (gözler kaplıyken ve açıkken)
- Yaşama bakışı değiştiren ruhsal deneyimler

A. Hofmann LSD 1938
Sandoz







LSD Blotter (Alex Grey Image)
Submitted Anonymously, © 2003 Erowid.org

