

“Discover the Hope: Opiate Treatment and Recovery”

The Continued Struggle to Find and Implement “Best Practices”

Ted Parran JR. M.D. FACP

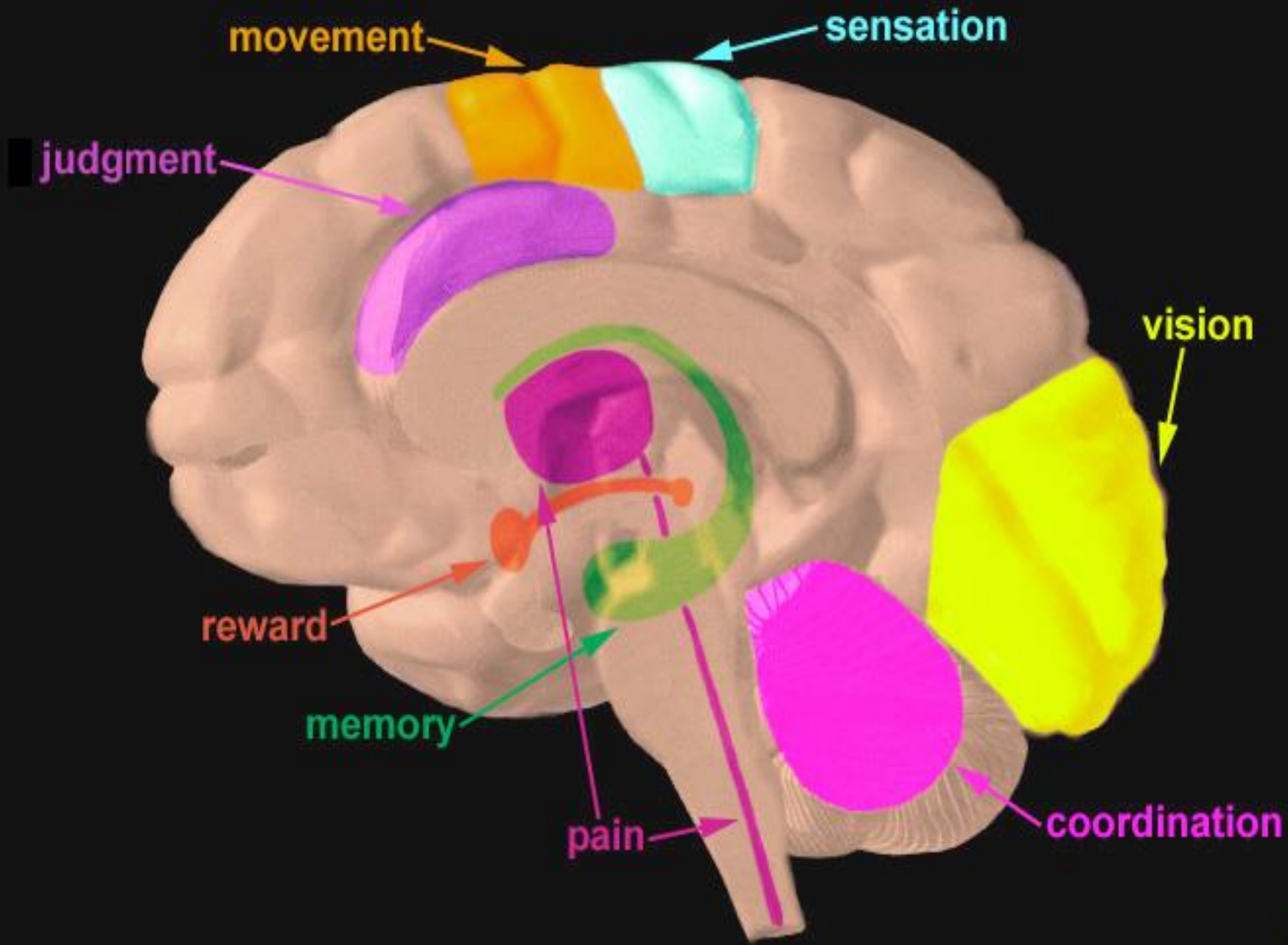
Carter and Isabel Wang Professor of Medical Education

CWRU School of Medicine

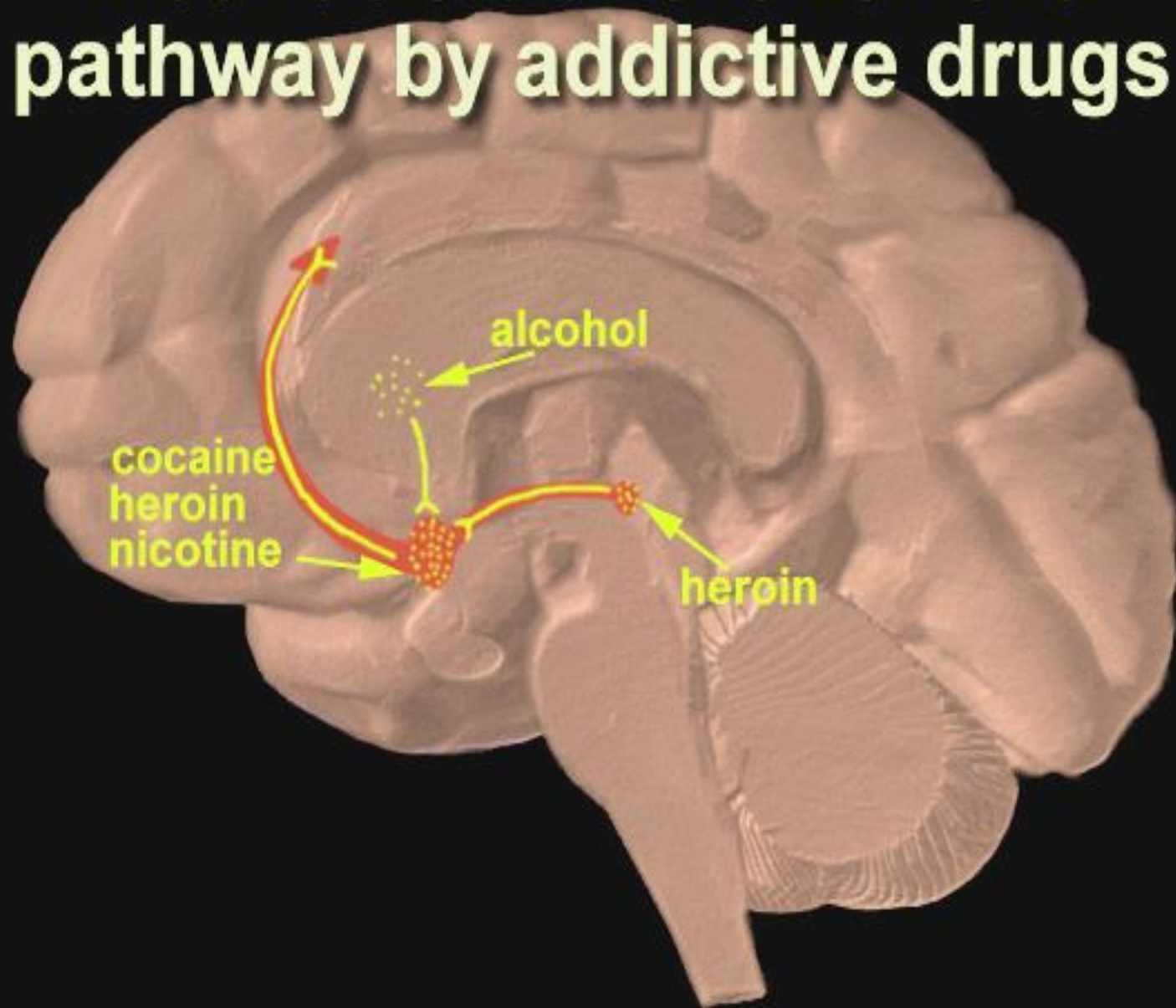
typ@cwru.edu

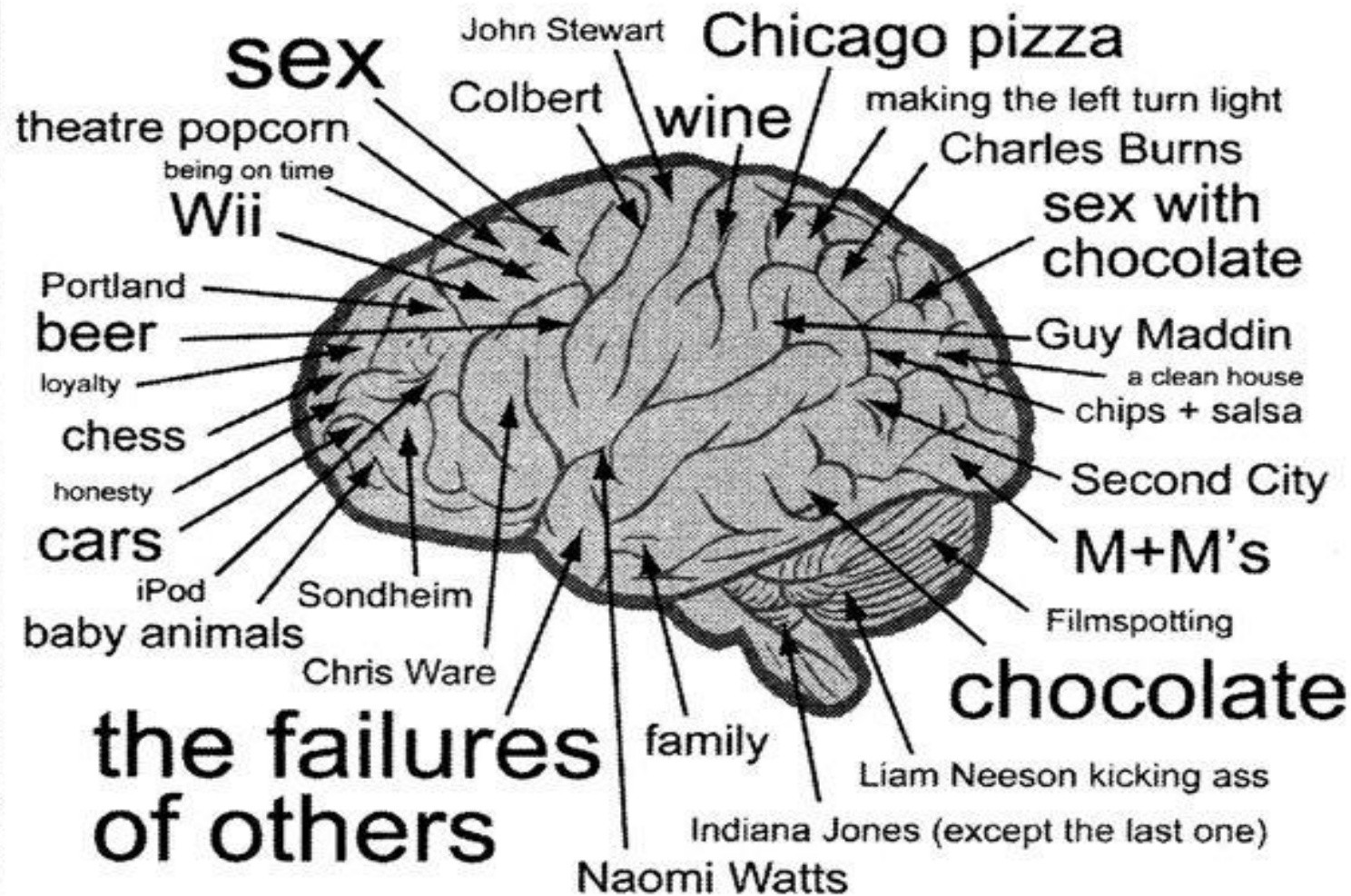
The Addictive Brain and Euphoria Producing Drugs

- All “euphoria producing” or “brain reward” drugs (EPD’s or BRD’s) have abuse and dependence producing potential
- Sedative-hypnotics / Stimulants / Opioids / MJ
 - Totally DIFFERENT classes
 - Totally DIFFERENT primary brain effects
 - What do they have in COMMON?
 - *Acute release of DOPAMINE from the VTM/NA to the frontal cortex*



Activation of the reward pathway by addictive drugs

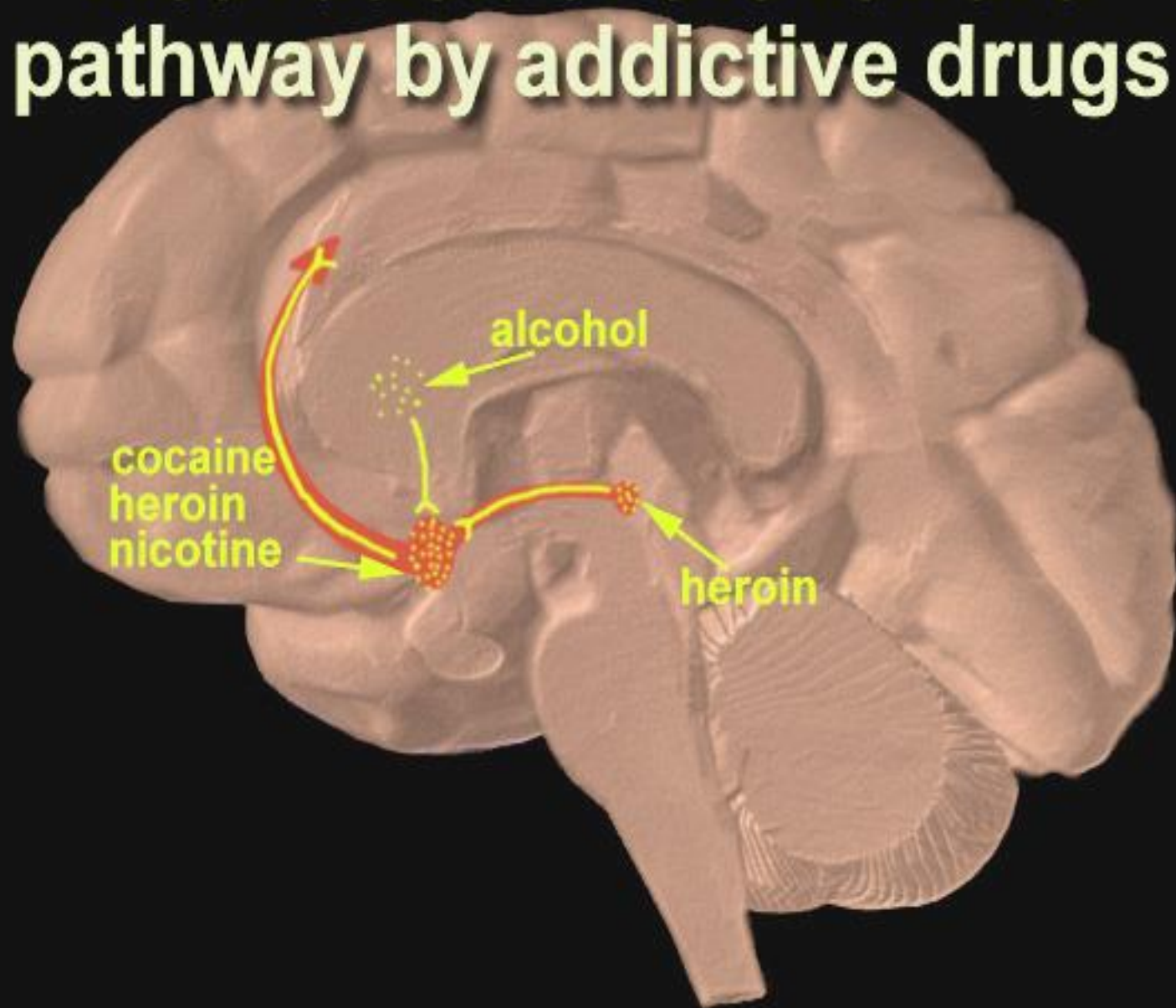




Pleasure centers

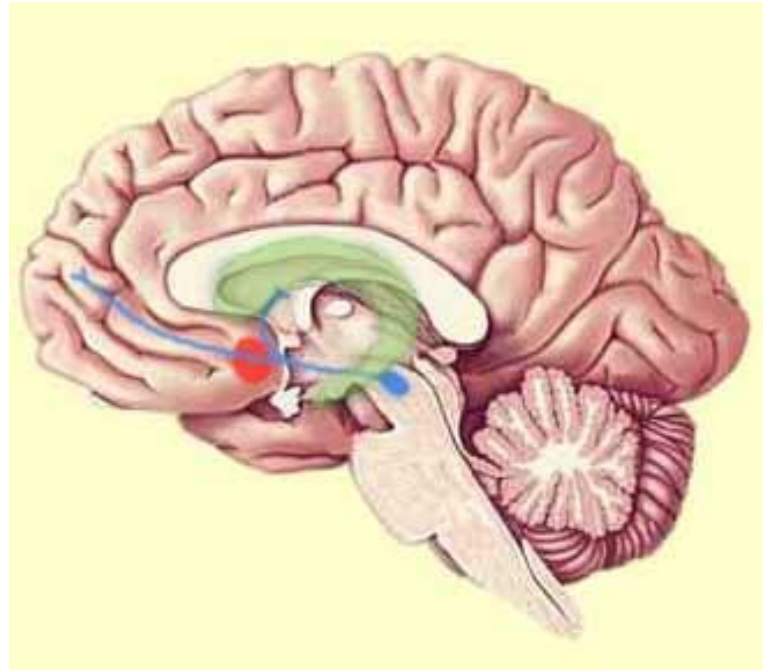
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Activation of the reward pathway by addictive drugs



The Pleasure Centers Affected by Drugs

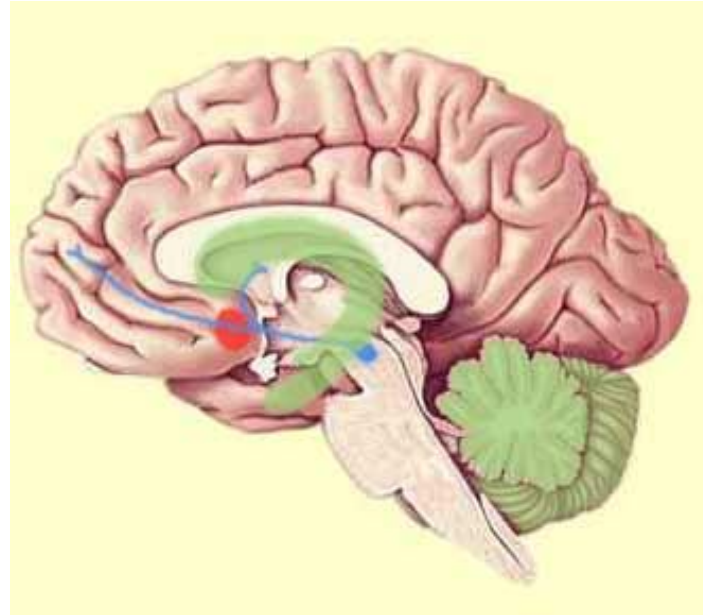
Cocaine and stimulants



- Cocaine and amphetamines concentrate in the central link of the reward circuit (the ventral tegmental area and the nucleus accumbens). These areas contain especially high concentrations of dopaminergic synapses, which are the preferred target of these drugs.

The Pleasure Centers Affected by Drugs

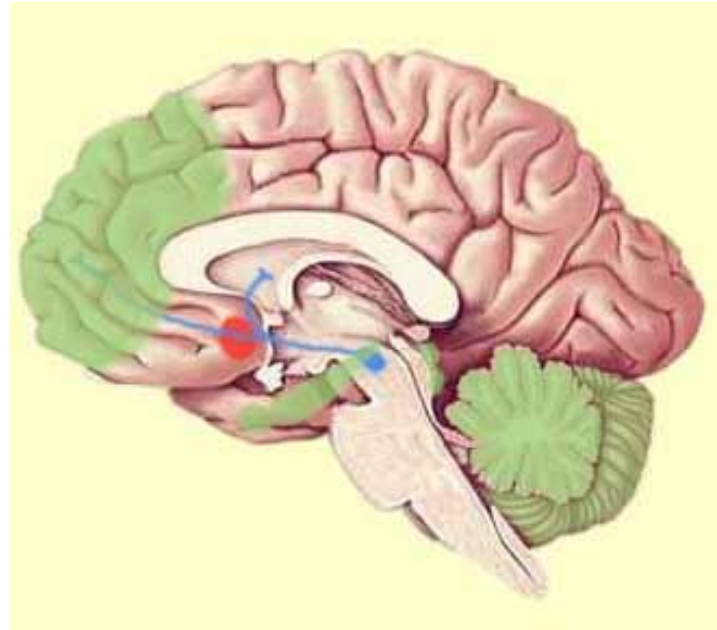
Cannabis



- One active ingredient in [cannabis](#) is THC, which concentrates chiefly in the ventral tegmental area and the nucleus accumbens, but also in the hippocampus, the caudate nucleus, and the cerebellum.
- THC's effects on the hippocampus might explain the memory problems that can develop with the use of cannabis, while its effects on the cerebellum might explain the loss of coordination and balance experienced by people who indulge in this drug.

The Pleasure Centers Affected by Drugs

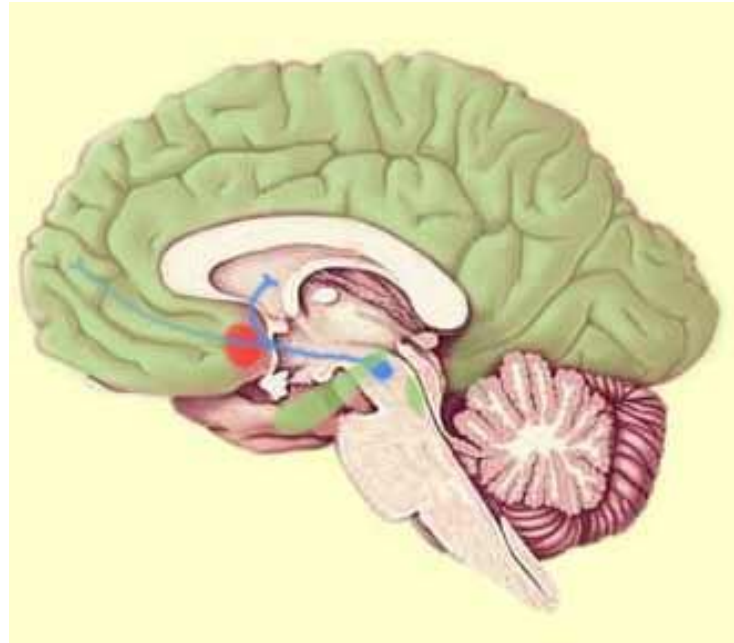
Alcohol and the Sedative-Hypnotics



- Alcohol and other sedative-hypnotic drugs affect not only the basic structures of the reward circuit, but also several other structures that use GABA as a neurotransmitter. GABA is one of the most widespread neurotransmitters in several parts of the brain, including the cortex, the cerebellum, the hippocampus, the amygdala, and the superior and inferior colliculi.

The Pleasure Centers Affected by Drugs

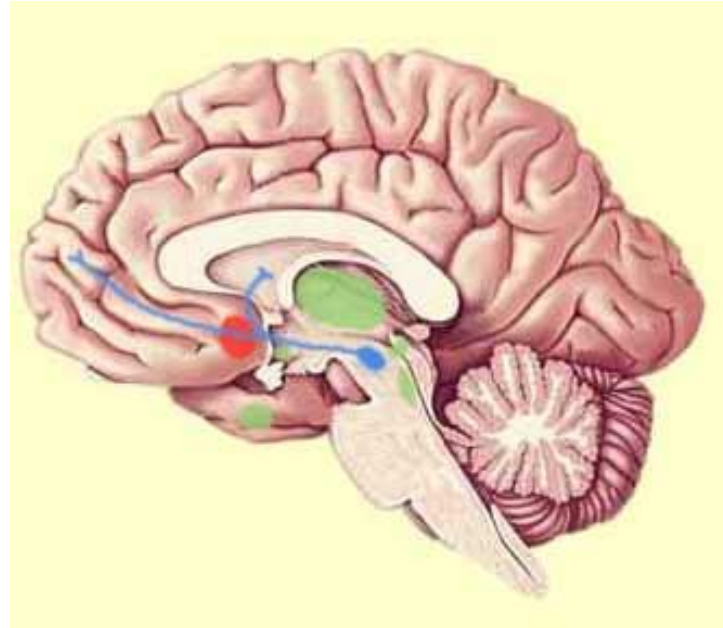
Nicotine



- The [nicotine](#) in tobacco stimulates several distinct parts of the reward circuit, such as the locus coeruleus and its noradrenergic neurons, which modulate movement. Several other areas in the brain that secrete acetylcholine also appear to be affected by nicotine. The hippocampus and the cortex are two such areas, which might explain the increased vigilance and attentiveness that smokers often report.

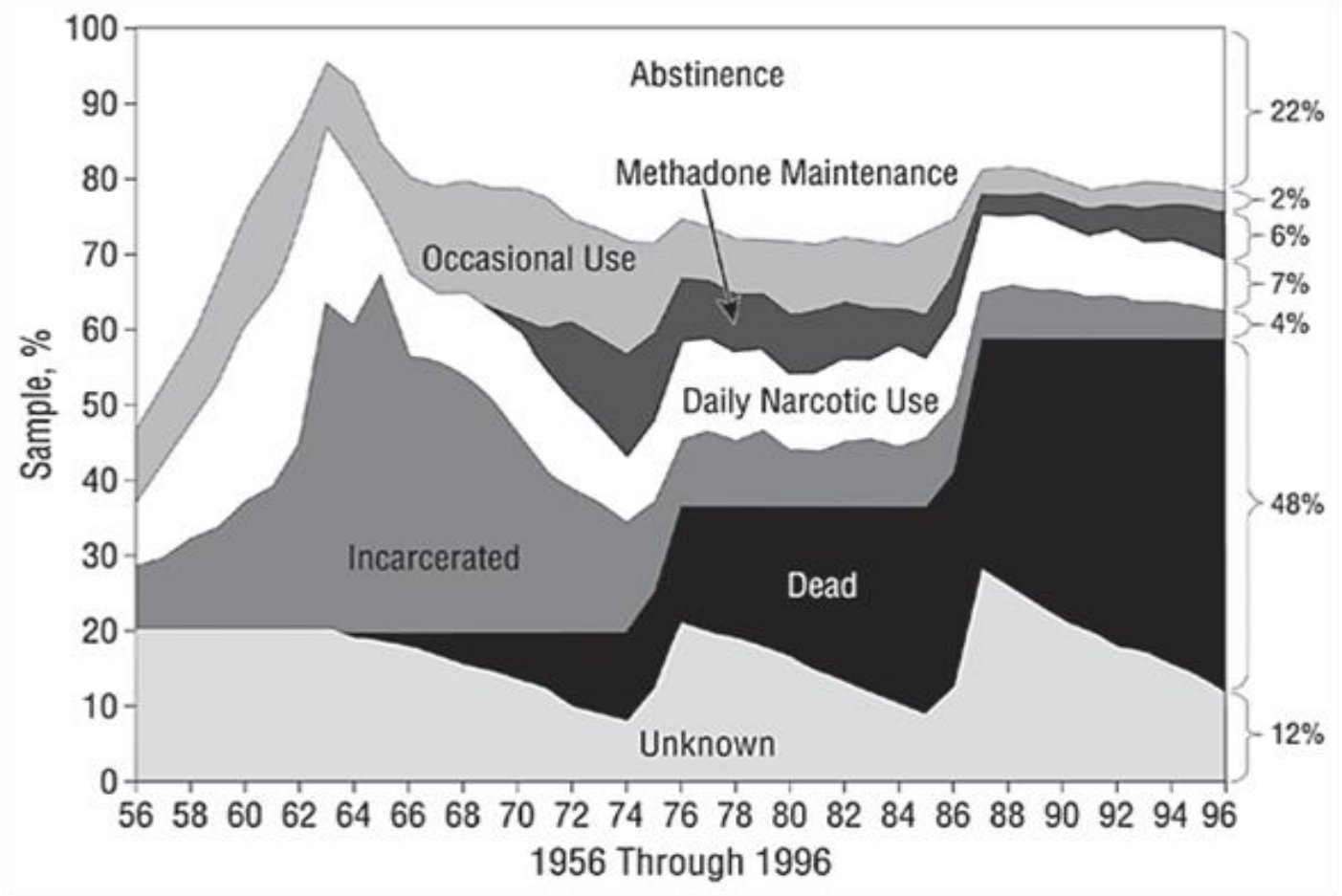
The Pleasure Centers Affected by Drugs

Opioids



- Opioids act not only on the central structures of the reward circuit (the ventral tegmental area and the nucleus accumbens), but also on other structures that are naturally modulated by endorphins. These structures include the amygdala, the locus coeruleus, the arcuate nucleus, and the periaqueductal grey matter, which also influence dopamine levels, though indirectly. Opiates also affect the thalamus, which would explain their analgesic effect.

The Natural History of Opioid Addiction: A public health perspective on the disease of addiction



The Natural History of Opioid Addiction

- High mortality rate
- High incarceration rate
- High relapse rate

BUT ALSO ...

- More than 50% eventual “sobriety” rate (if you include stable OMT with abstinence as “sober”)

SO THE GOAL IS ...

- Keep them alive, increase sobriety and decrease relapse!

Ever Addicted and still alive after 40 years?

- Only 38% of original group – “we lose lots of them”
- 10% incarcerated
- 18% actively addicted / daily use
- 16% on OMT (methadone maintenance)*
- 58 % abstinent**
- Totally contrary to popular myth

* More patients are on OMT today due to increased slots in methadone and DATA 2000 buprenorphine availability

** *If* ~ 50% of OMT patients are otherwise abstinent, then *the “% abstinent” rate is ~ 68%*

The Pharmacotherapy of Opiate Addiction: MAT (medication assisted treatment)

- Why Do It?
 - It decreases relapse
 - It decreases death rates
 - ... **SO IT IMPROVES LIVES**
- Why Do It? (re: the provider)
 - IF it does all of the above ... then it makes dealing with these people easier and less troublesome and more efficient (and more enjoyable).

MAT: 2 Approaches

- Harm Reduction:
 - Pharmacotherapy first ??? Addiction TX second
 - E.g. historical methadone maintenance experience
 - E.g. “stand alone Suboxone”
- Adjunct to or Addition to Treatment:
 - A commitment to treatment first
 - Then add in MAT to try to improve outcomes
 - E.g. Intensive Outpatient Counseling & 12 step meeting attendance ... plus Methadone or Buprenorphine or Naltrexone
- Either is appropriate clinically and ethically, but not acceptable to all treatment providers.

HX of Pharmacotherapy of Addiction

- History of Pharmacotherapy:
 - Secobarbital then Librium (valium ... ativan ... xanax ... klonapin ... son of klonapin ...)
 - Antabuse
- Risks: Addiction / OD / unsafe / distraction from TX
- No wonder the recovering community is concerned about pharmacotherapy.
- Those who fail to learn from history - **repeat it.**

MAT and the recovering community

- Very very hesitant re: Harm Reduction approaches
- Treatment community therapeutic nihilism ... understandable but **NOT** appropriate
- Pharmacotherapy requirements of treatment team:
 - Active ongoing outreach to the recovering community
 - Sobriety is *behavioral*, abstinence is *chemical*
 - Parts of the treatment are private (need to know) but not secret (don't tell anyone)

MAT and the recovering community #2

(PRACTICAL points)

- Medications are private – tell anyone who is a health care provider about them
- Meetings are for assistance with daily sobriety (not advice about medications)
- Provide “AA Member – Medications and Other Drugs” www.aa.org/pages/en_US/aa-member-medications-and-other-drugs
- Counsel patients on how to talk about, and not talk about their medications

MAT and the Treatment Community

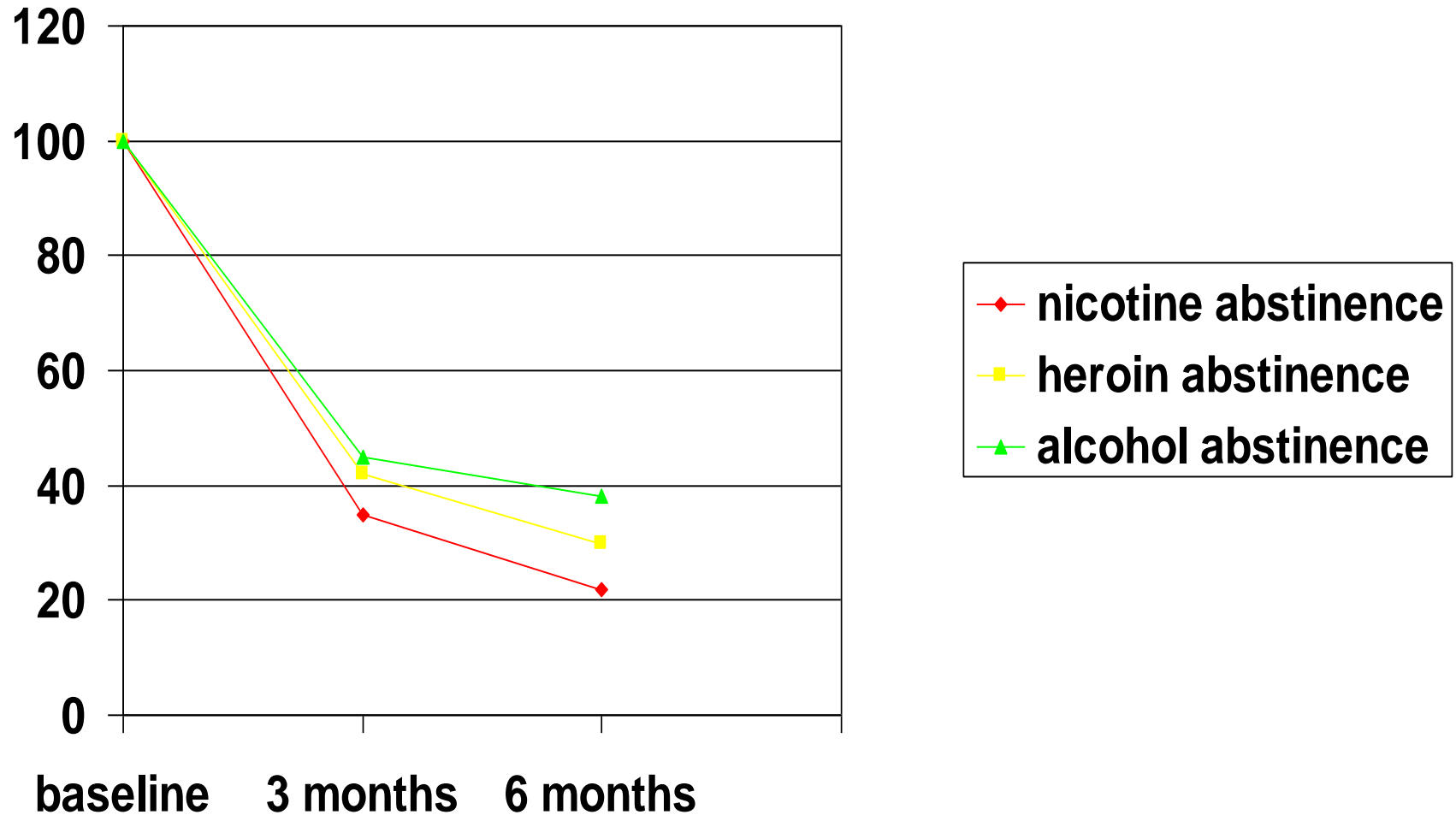
- **Many** are hesitant re: Harm Reduction approaches
- **SOME** are still hesitant re: MAT at all
- Understandable but **NOT** clinically appropriate
- Requirements of the Treatment Community:
 - Follow the research and evidence
 - Believe that Sobriety is *behavioral* and abstinence is *chemical*
 - Strive for sobriety in all patients, but accept harm reduction when necessary

MAT with opioid dependence: What Are The Medications???

- Methadone: “opioid maintenance treatment”
 - Harm reduction OR Adjunct to TX
- Buprenorphine: “opioid maintenance treatment”
 - Harm harm reduction OR Adjunct to TX***
- Naltrexone: “opioid blocker treatment”
 - Pills (naltrexone) or Shots (Vivitrol)

*** New (January 2015) State Medical Board Rules re:
SL buprenorphine

Addiction Relapse Rates: Duration of RX



MAT: Duration of RX (≥ 2 yrs)

- Methadone maintenance data:
 - In patient doing well
 - Duration of two years or longer
 - Produced improvements in morbidity and mortality
- AA data:
 - Lead in Home Group after one year
 - Sponsor others after two years
- Anything that AA and methadone treatment agree on MUST be important ... so $>$ two years duration

MAT options in opioid addiction

- Opioid blocker therapy
 - Which blocker approach to use?
 - Oral naltrexone (PILLS)
 - Injected naltrexone (SHOTS / ?longer-term implants)
 - Combination of oral and injected naltrexone (BOTH)
- Opioid maintenance therapy (methadone or buprenorphine)
 - Which agonist to use?
 - **Methadone** program
 - **Buprenorphine** program, (SL or ?implants)
- Blocker or maintenance MAT double sobriety*

Opioid BLOCKER Therapy

- **Oral naltrexone: (the pills)**

- Advantages: easy, anyone can RX, only involves RX, higher blood levels, less cumbersome, much cheaper, works three times a week or daily.
- Disadvantages: lower compliance, only demonstrated to have reasonable compliance in coerced populations (i.e. probationer and physician studies)
- **Must** be built into parole / probationary language
- **Must** have “supervised self admin” in IOP / aftercare
- **Must** have “observed self-admin” at PO visits

Opioid BLOCKER Therapy

- **Injected naltrexone: (the shots)**
 - Advantages: once monthly injections document compliance, gives the sense of control (for the Medical Board / PO / Court), no need to deal with supervised / observed administration.
 - Disadvantages: riskier (it is a procedure), lower blood levels, much more expensive, tricky re: insurance coverage, not many injection centers.
 - **Must** be built into parole / probationary language
 - ? 3-6-9 month implants are being launched (without FDA approval) 2015-2016.

Opioid BLOCKER therapy - summary

- PILLS - Easier and cheaper
- SHOTS – make monitoring simpler
- SHOTS & PILLS – shots for 2-3 months followed by PILLS is one more cost effective approach.
- Avoided by many patients
- **MUST be aggressively pushed by EVERY TX TEAM!**
- ? Emerging longer-term implants

Opioid maintenance treatment

- Intoxication with opioids (and nicotine) does not produce significant judgment impairment.
- Discrete receptor system (like nicotine, and unlike alcohol, cocaine / amphetamines)
- Potential for blocker OR **replacement** therapy -
 - nicotine replacement therapy
 - opioid maintenance therapy
- Is it “A DRUG FOR A DRUG”?
 - **Yes** (of course) !!!!!
- If used **right** it is “*a medication to help improve success of a sobriety program*”

Opioid maintenance treatment

- Duration of therapy: best if 2 years or longer
- Need for comprehensive longitudinal approach (i.e. build OMT into a full treatment program).
- Need abstinence from all other euphoria producing substances ... so need OMT to be integrated into a well rounded sobriety program.

MAT maintenance: outcome data

- Opiate maintenance therapy (methadone OR buprenorphine) on balance results in improvement in every domain of life function ... especially if combined with good treatment:
 - **family**
 - **health**
 - **legal**
 - **employment**
 - **financial**

Opioid maintenance therapy: METHADONE

- Developed in 1960's ... Licensed in early 1970's.
- The most regulated drug in history.
- The most researched addiction treatment modality in history.
- The most misunderstood addiction TX ever.
- Works well – if used as addition to treatment ... in a good quality Methadone Program.

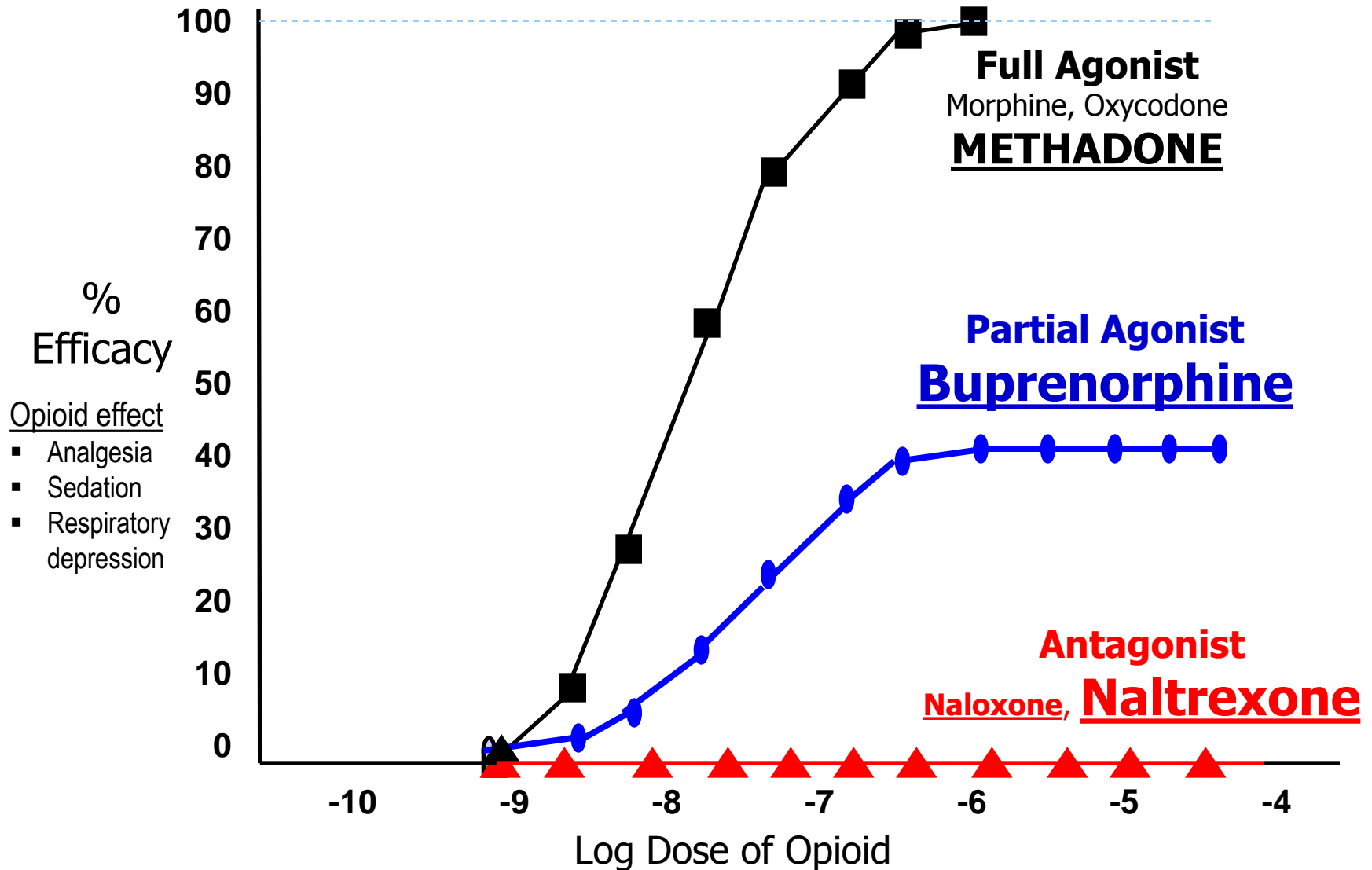
Opiate maintenance - **methadone**

- What's a “**GOOD**” methadone program?
 - Release of information for all health care / social service / legal providers ... with frequent contact
 - Tox screening monthly or more often – results avail.
 - Counseling
 - Flexible TX Plan ... harm reduction **OR** abstinence
 - The TX Plan should be CLEAR (and shared)
 - Dose =/ $<$ 120mg/d
 - Discourage other controlled RX drugs (benzos etc.)
 - Increasing intensity of treatment over time if non-adherent (problem urines due to still using)

Opioid maintenance: **buprenorphine**

- Developed in 1980's ... Licensed in late 2002.
- Combined with ***naloxone*** (to discourage IV use)
 - Suboxone / Zubsolve
- Non-combined product (just buprenorphine)
 - Subutex / generic buprenorphine
- Non-combined - **ONLY** used in pregnancy
- All non-pregnant patients should be on **combined**
- Works **well** – **if** used as addition to treatment ... **in**
a good quality buprenorphine program.

Opioid Intrinsic Activity



SL buprenorphine v. methadone

- Advantages v. methadone
 - Works as well / lower abuse potential (not C II) / less withdrawal upon cessation / less dangerous in over-dose
- Disadvantages v. methadone
 - more expensive / less studied / SL not PO / since prescribed and not administered = much much much more diversion
- Buprenorphine diversion = relatively therapeutic (used for TX or to avoid W/D)

Opiate maintenance - buprenorphine

- What's a “**GOOD**” buprenorphine program?
 - Release of information for all health care / social service / legal providers ... with frequent contact
 - Tox screening / Counseling / PMP checks required
 - Dose \leq 16mg/d ... most patients on 4-12mg/d
 - Requires *combined* bup-naloxone product mostly
 - NO other controlled RX drugs (benzos etc.)
 - Increasing intensity of treatment over time if non-adherent (problem urines due to still using)
 - Accepts insurance payments for visits

Emerging buprenorphine news

- Changing State Medical Board rules
- Implants – ? once a month / ? once every three months just FDA approved
- Unclear if it can be repeated after 3 months
- Roughly equivalent to 8mg SL/d – only one dose
- ? Better adherence: SL actually = erratic levels
- Clearly less diversion potential

Monitoring When on MAT

- Constant awareness of client's level of participation in Tx. Prog. (releases!!!!!!!!!!!!!!)
- Ask Tx. Prog. Re: PMP & tox results / continued use of MAT / presence and progress in TX.
- Obtain patient and collateral report of sobriety and full adherence with the treatment program.
- 12 Step Monitoring:
 - Ask client AND sponsor: how often / which meetings / what “step” working on ... PLUS signed slips.
- ANY slip in adherence = relapse risk increase!!!!

Summary: MAT for Opioid Addiction

- Opiates work on specific receptors
 - Therefore there are viable **blockers** and **maintenance**
- Effectiveness of MAT:
 - Naltrexone (pill or shot) ~40-60% sobriety
 - Methadone ~ 40-60% sobriety
 - Buprenorphine ~ 50-60% sobriety
- Duration – 24+ months
- Dose – lowest effective dose
- *EVERY opioid addict should be on one of these three medications*

Questions?