Panel Presentation III
Treatment/Relapse

Thomas Kosten MD
Waggoner Chair & Professor of Psychiatry, Pharmacology & Neuroscience
Associate Dean for Clinical Research
Baylor College of Medicine

Past President – American Academy of Addiction Psychiatry
Value Added by Merging NIDA and NIAAA

• Scientific overlap in vulnerability, mechanisms, use, prevention, and treatment of alcohol and other drug use

• Patients often abuse more than one substance and need treatment for all of them
  – 60% of tobacco smokers abuse alcohol
  – 85% of opiate addicts abuse alcohol
  – 90% of stimulant addicts abuse alcohol
Behavioral Interventions

• Most patients need concurrent behavioral treatment of both alcohol and other drugs

• **AND** Most behavioral therapies have great similarity across alcohol and other drugs of abuse

• Cognitive behavioral therapy

• Motivational enhancement therapy

• Contingency management therapy

• Counseling and group therapies

• Medication management therapies
Improved Clinical Trials

• Combined Institute for broadest approach to treating the multiple biological, behavioral, social, medical, and family factors in addiction
• Clinical trials of alcohol-polydrug abusers.
• NIDA's Drug Abuse Clinical Trials Network is currently unable to include alcohol-only arms
• Alcohol trials often do not measure smoking cessation, but 80% of alcoholics smoke
Medications Development

- Naltrexone and disulfiram are approved for alcoholism and show promise for drug addiction.
- 85% of prescription opiate abusers also abuse alcohol, but buprenorphine effects on their alcohol abuse have not been examined.
- Impact of even moderate use of alcohol (and tobacco) on relapse to other drug use has not been adequately addressed.
- Pharmacogenetics – naltrexone and disulfiram
Institutional Cross-over Medications (NIDA & NIAAA)

- **Naltrexone** for opiates initially, then FDA approved for alcohol and potentially useful for methamphetamine.
- **Disulfiram** for alcohol (aversive) and now 8 clinical trials showing efficacy for cocaine.
- **Buprenorphine** for opiate addiction, and its mu opiate antagonism at anti-addiction doses may reduce comorbid alcohol abuse.
Pharmacogenetic Cross-overs

- **Naltrexone for alcohol** appears more effective in patients with a common (30-50%) functional mu receptor polymorphism
  - Also for methamphetamine

- **Disulfiram for cocaine** appears more effective in patients without a common (40%) functional dopamine beta hydroxylase enzyme polymorphism that increases DA/NE ratio
  - Also for alcohol
Conclusions

• The science benefits from mutual enrichment of common brain pathways, shared medication efficacy, and overlapping pharmacogenetics

• All these drugs derange multiple organ systems beyond the brain – liver, lungs, heart, endocrine

• Behavioral treatments are quite similar across these abused substances

• Process addictions research in gambling, internet gaming, sex, food and other areas needs a coherent home to anchor its future contributions
A Plea for Synergism

• Addiction science is ripe for integration
• Behavioral and Pharmacological addiction treatment has substantial and successful overlap
• Integration & **synergism** is the transformative goal
• **NOT** Dis-integration or Dis-enfrancising productive research areas in either Institute
• We need a deliberate process for **synergism**, not cost saving or “efficiency”