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”