



INTEGRATIVE RESEARCH ON POLYSUBSTANCE ABUSE AND USE DISORDER

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CRAN COUNCIL CONCEPT CLEARANCE

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BACKGROUND

- Polysubstance use (PSU) is COMMON.
 - 20% to 30% of youth and young adults engage in polysubstance use (PSU)
 - The majority of substance use treatment seekers have a PSU history
- Polysubstance users exhibit worse health and societal outcomes
 - Mental health problems
 - Overdose
 - Adverse social outcomes
- PSU research has some inherent complications
 - Complex data interpretation
 - Additional control groups
 - Challenges of modeling 'real world' phenomena with animal and clinical research
- Translational approaches will advance our PSU research efforts

PAR-18-084 PROGRAM GOALS

1. Characterize how neurobiological alterations, associated behaviors, and public health consequences are affected by polysubstance use vs. single drug use.
2. Promote integrative polysubstance research along a translational pipeline.



FUNDED PROJECTS

Project	R21	R33	Drug #1	Drug #2	Emphasis
DA044377-02	Population (PI: Youn Lee)	Basic & Clinical (PI: Jenny Wiley & Ryan Vandrey)	Tobacco	Cannabis	Patterns of exposure on reinforcement
DA044946-01	Population (PI: Cynthia Arfken)	Clinical (PI: Mark Greenwald)	Benzo	Opioids	Pain, choice decision making, affect, impulsivity
DA045148-01	Basic (PI: Kat Kantak)	Clinical (PI: Mike Otto)	Cocaine	Heroin	Impulsivity, compulsivity, harm avoidance
DA045640-01	Clinical (PI: Eiden Evans)	Basic (PI: Peter Thanos)	Tobacco	Cannabis	Stress reactivity, inflammation, attention, working memory
DA045140-01	Population (PI: Linda Cottler)	Basic (PI: Lori Knackstedt)	Cocaine	Alcohol Cannabis	Neurobiological mechanisms (NAc glutamate release, D2 expression)
DA047527-01	Population (PI: Renato Polimanti)	Clinical (PI: Joel Gelernter)	Alcohol, Nicotine, Cannabis, Opioids, Cocaine		Polygenic risk score & Epigenetic modifications