

NewsScan

NIDA ADDICTION RESEARCH NEWS

Funding News

Request for Applications in Drug Abuse Research

Animal Models of Adolescent Drug Abuse: Integrative Studies of Brain and Behavioral Development (RFA-DA-04-011)

Recent studies suggest that brain development continues beyond the first few years of childhood. In fact, brain development during adolescence is characterized by dramatic changes in growth and connectivity. These structural alterations coincide with apparent changes in adolescent behavior and thought processes.

To more fully understand how these changes affect the cognitive, social, and emotional processes that characterize human adolescent development, NIDA is issuing this request for applications (RFA). NIDA seeks to promote relevant animal research, integrating basic neurobiology with behavioral studies. The intent of this research is twofold: to establish neurobiological models for understanding the causes and consequences of adolescent behavior associated with taking drugs; and to identify neurobiological correlates of behaviors associated with or produced by drugs of abuse.

Areas of research representing a merger of neurobiological and behavioral approaches include:

- Understanding temporal and spatial changes in neuroanatomy associated with adolescent growth and how these changes correspond with altered behaviors;
- Defining relationships between anatomic/behavioral changes and variations in hormone synthesis;
- Analyzing changes in nerve cell formation and programmed cell death (apoptosis) that occur during adolescence and identifying any behavioral consequences;
- Identifying critical periods during adolescent brain development when drugs could affect cognitive, emotional, or social behaviors.

For more information about this RFA, go to <http://grants.nih.gov/grants/guide/rfa-files/RFA-DA-04-011.html>.

Behavioral and Cognitive Processes Related to Adolescent Drug Use (RFA-DA-04-009)

Adolescence is a period of increased vulnerability to the addictive properties of legal and illegal drugs. Fifty percent of illicit drug abuse in adults with substance abuse disorders begins between the ages of 15 and 18.

Although factors such as parental drug use, stress, and peer pressure are associated with drug availability and experimentation, they are not the sole causes of adolescent drug use initiation and progression to addiction. Individual, cognitive, and neurobiologic characteristics may interact with these and other social factors to influence decisions that lead to substance abuse.

The goal of this request for applications (RFA) is to fund new and innovative research in the behavioral, cognitive, and social arenas that will enhance our understanding of vulnerability to drug abuse during adolescence. Examples of relevant projects and topics include, but are not limited to:

- Basic studies of decisionmaking processes as influenced by risk, social context, uncertainty, and high motivational states;

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- Studies of cognitive mechanisms that control transitions to and from automatic and controlled information processing (relevant to understanding drug craving and drug abuse relapse);
- Impact analyses of environmental/social stressors on cognitive processing;
- Studies of the neurobiological substrates of basic cognitive processes that might be involved in adolescent vulnerability to drug abuse or might be directly affected by drug abuse.

For additional information about this RFA, go to <http://grants.nih.gov/grants/guide/rfa-files/RFA-DA-04-009.html>.

Prevention Research for the Transition to Adulthood (RFA-DA-04-013)

People are most likely to initiate drug use or escalate to drug abuse during developmental and social transitions, such as the change from elementary to middle school. However, the developmental period designated as emerging adulthood—characterized by a variety of unique life changes and choices—has received less attention from the research community than other transitional periods that occur earlier in life.

Research indicates that past-month illicit drug use peaked among 18- to 20-year-olds, remained high for those between 21 and 25, and then dropped between the ages of 26 to 29. These rates of drug use suggest the need to focus on preventing initiation and escalation of drug use among people between the ages of 18 and 25.

Studies of interest under this request for applications (RFA) may focus on preventive interventions at the intrapersonal, family, school/work, peer, and broader social context levels. Appropriate in-scope studies include examinations of the effects of childhood interventions in the young adult years, and studies of naturally occurring impacts of environmental or systems-level interventions. Examples of more specific projects include:

- Implement and assess adaptations of interventions culturally tailored to emerging patterns of drug use and drug-related problems among racial or ethnic groups;
- Design and test interventions that involve parents in communicating with their children about drugs as they prepare them for college or entry into the full-time workforce;
- Develop preventive interventions for workplaces and colleges that address drug-use norms, work-related stress, and occupational group pressures to use drugs;
- Examine ways to effectively communicate prevention messages to late adolescent and early adult populations using traditional and nontraditional media.

For additional information about this RFA, go to <http://grants.nih.gov/grants/guide/rfa-files/RFA-DA-04-013.html>.

Medications Development for Cannabis-Related Disorders (RFA-DA-04-014)

Marijuana, derived from the plant *Cannabis sativa*, is the most commonly used illicit drug in the United States. Use is particularly heavy among adolescents (two-thirds of the approximately 2.4 million people who use marijuana for the first time each year are between the ages of 12 and 17). Since no drug treatment for cannabis-related disorders currently exists, there is a great public health need to develop safe and effective therapeutic interventions.

The goal of NIDA's request for applications (RFA) is to foster research focused on the development of safe and effective medications to treat disorders related to marijuana use. Medications studied under this RFA may target cannabis dependence and abuse, or such drug-induced conditions as delirium, psychosis, and anxiety. They also may focus on withdrawal, craving, cognitive impairment, sleep-related problems, depression, and other mood disorders related to marijuana use.

Research topics of interest may include, but are not limited to:

- Design and implementation of Food and Drug Administration (FDA) Phase I clinical trials to assess safety and tolerability of medications in humans;
- FDA Phase II clinical trials to evaluate the efficacy of new or currently marketed medications for treating cannabis-related disorders;
- Brain imaging studies to determine treatment effects on brain chemistry and to determine markers of efficacy.

For additional information about this RFA, go to <http://grants1.nih.gov/grants/guide/rfa-files/RFA-DA-04-014.html>.

Program Announcements

HIV/AIDS, Severe Mental Illness, and Homelessness (PA-04-024)

NIDA is one of three components of the National Institutes of Health encouraging researchers to submit applications for research projects that focus on severely mentally ill and/or homeless persons, with special attention to developing, implementing, evaluating, disseminating, and translating effective HIV interventions to the community and to public health service organizations.

Research is needed to better understand the prevalence of HIV and AIDS among homeless people with severe mental illness and drug abusing behaviors.

Examples of research topics that may be considered for funding under this program announcement include:

- Epidemiologic multisite studies of population-based samples of at-risk and HIV-infected people with diagnosed mental illness and a history of alcohol or drug abuse;
- Evaluation of potential therapies for preventing and treating HIV-associated infections and co-infections, and research on treating comorbidities;
- Research on mental health or substance abuse service needs or service system organization, and assessment of the most effective methods for providing and financing services for homeless HIV-infected people with severe mental illness.

For additional information about this program announcement (PA), go to <http://grants1.nih.gov/grants/guide/pa-files/PA-04-024.html>.

National Cooperative Drug Discovery Groups for the Treatment of Mood Disorders or Nicotine Addiction (PAR-04-009)

NIDA is one of four NIH components participating in this research solicitation. The purpose of NIDA's involvement in this program announcement (PA) is to accelerate drug discovery and develop pharmacologic tools for basic and clinical research on nicotine addiction. This includes research to develop and validate new models of nicotine addiction that can predict treatment efficacy.

Targets of interest include, but are not limited to:

- Nicotinic cholinergic receptor (nAChR) subtypes, such as alpha4/beta2, alpha7 and its variants, alpha3-containing and other nAChRs that have been implicated in nicotine reward, reinforcement, withdrawal, and relapse;
- Nicotinic ligands that target various states of the nAChRs;
- Receptors that mediate the action of bupropion.

For additional information about this PA, go to <http://grants.nih.gov/grants/guide/pa-files/PAR-04-009.html>.

Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows (PA-04-032)

NIDA and five other components of the National Institutes of Health (NIH) present Ruth L. Kirschstein National Research Service Awards to predoctoral applicants who display the potential to become productive, independent investigators. The fellowship does not support study leading to professional degrees unless it is part of a combined degree program, such as the M.D./Ph.D. program.

As of the activation date, applicants must have received a baccalaureate degree and be enrolled in a program leading to a research doctorate. Applicants must have successfully completed their comprehensive examinations or the equivalent by the time of the award, and be ready to perform dissertation research and undergo training.

Fellowship awardees are required to pursue their research training on a full-time basis, devoting at least 40 hours per week to the training program. Before submitting a fellowship application, the candidate must identify a sponsoring institution and an individual who will serve as a mentor and will supervise the training and research experience.

For additional information about this PA, go to <http://grants1.nih.gov/grants/guide/pa-files/PA-04-032.html>.

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For more information about any item in this *NewsScan*:

- Reporters, call Michelle Person at 301-443-6245.
- Congressional staffers, call Mary Mayhew at 301-443-6071.

The National Institute on Drug Abuse (NIDA) is a component of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports more than 85 percent of the world's research on the health aspects of drug abuse and addiction. The Institute carries out a large variety of programs to ensure the rapid dissemination of research information and its implementation in policy and practice. Fact sheets on the health effects of drugs of abuse and information on NIDA research and other activities can be found on the NIDA home page at <http://www.drugabuse.gov>.

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The National Institute on Drug Abuse
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