

Future Directions and Funding Priorities for HIV and Technology-Based Research

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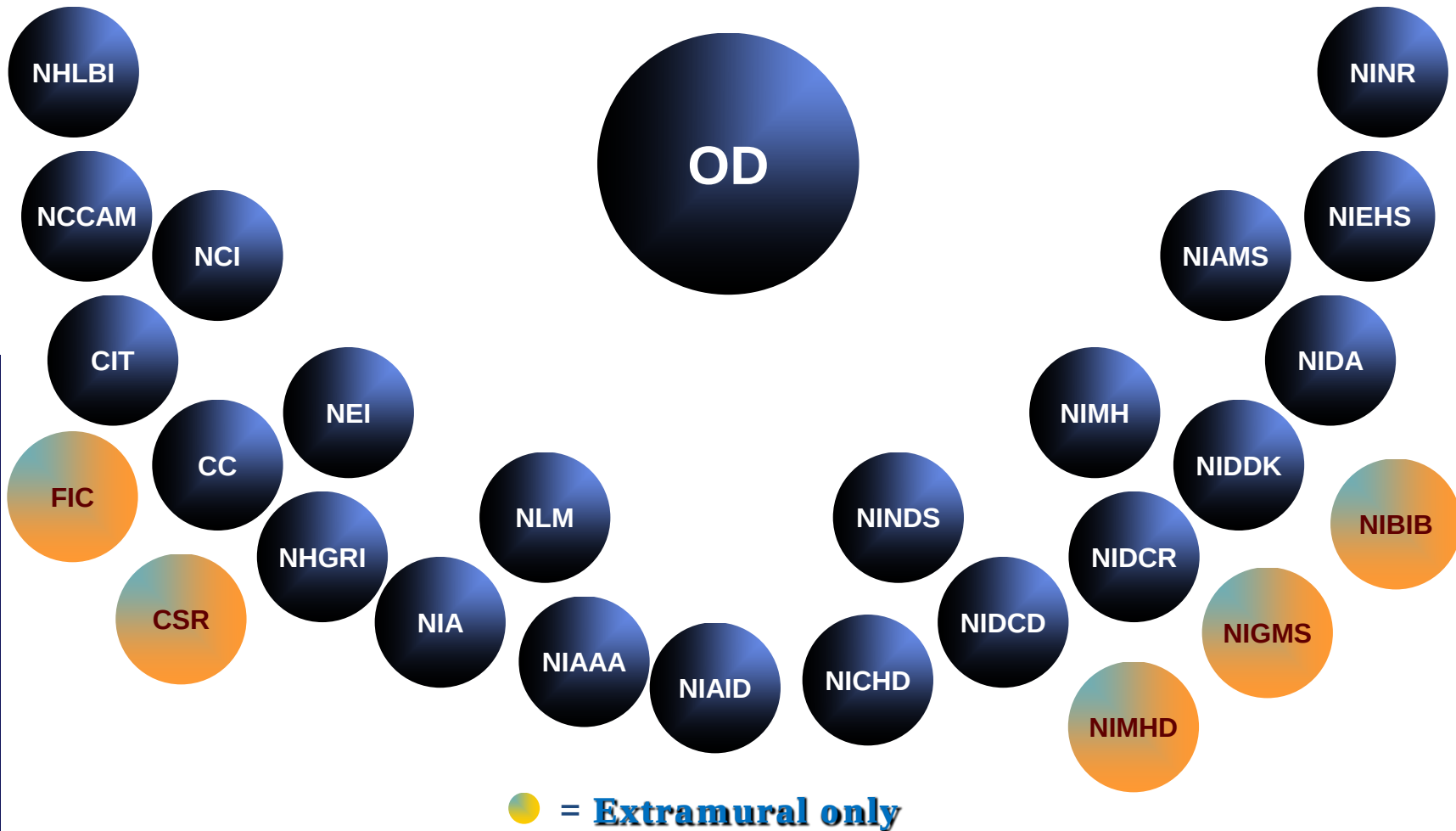
Innovative Use of Technology for HIV Prevention and Care: *Evidence, Challenges, and the Way Forward*
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Overview

- HIV Research at NIDA
- Funding priorities
- HIV initiatives
- Funding Opportunities (HIV/Technology)
- Questions, Challenges, Considerations, Opportunities

NIH Consists of 27 Institutes and Centers



NIDA Mission

NIDA's mission is to lead the Nation in bringing the power of science to bear on drug abuse and addiction.

Two critical components:

- Strategic support and conduct of research across a broad range of disciplines.
- Ensuring the rapid and effective dissemination and use of the results research to significantly improve prevention and treatment and to inform policy as it relates to drug abuse and addiction.

NIDA's HIV/AIDS Priorities

- Supporting research to better understand the etiology, pathogenesis, and spread of HIV/AIDS among drug-abusing populations.
- **Preventing the acquisition (primary prevention) and transmission (secondary prevention) of HIV among drug abusers and their partners.**
- **Decreasing the health disparities associated with HIV/AIDS.**
- Supporting international research on the intertwined epidemics of drug abuse and HIV/AIDS.
- **Improving HIV treatment and outcomes of drug abusers through a better understanding of interactions with drugs of abuse, HIV/AIDS disease processes, and the medications used to treat both.**

NIDA's HIV/AIDS Research Priorities

Domestic

- Reducing racial/ethnic disparities in HIV testing, access, and utilization of treatment and services.
- Seek, test, treat, and retain—expanding HIV testing, linkage, and retention in care for hard-to-reach populations.
- Improving effectiveness of HIV therapy for substance abusers
- Drug treatment as HIV prevention
- Interventions for drug users involved in the criminal justice system
- Strategies to coordinate and improve treatment and services for HIV, drug abuse, and co-occurring conditions (e.g., HCV)
- Enhancing adherence to treatment for HIV and comorbid conditions
- Research on structural interventions to prevent HIV/AIDS transmission and/or to enhance access/utilization of treatment and services

NIDA's HIV/AIDS Research Priorities

International

- Develop prevention strategies addressing non-injection drug use such as stimulants (e.g. methamphetamine, cocaine, crack) in vulnerable populations (e.g., MSM, young women) where prevalence is high (e.g., Latin America, Asia, Africa)
- Develop prevention strategies addressing HIV/injection drug use epidemics in different geographic areas (Russia, China, SE Asia, India, Eastern/Central Europe)
- Drug treatment as HIV prevention, including development of long-acting, sustainable therapies
- Assessment of HIV/AIDS treatment as HIV prevention
- Implementation science research to guide scale-up of cost-effective interventions
- HIV and co-infections (e.g., HCV, TB)

HIV Research with the Division of Epidemiology, Services and Prevention Research

- Domestic & International
- Populations:
 - IDU, Non-IDU, MSM, High Risk Heterosexuals
 - A range of substances and patterns of drug use
- Key Approaches:
 - Seek, test, treat, retain
 - Implementation research (Prevention & Care)
 - Addressing emerging epidemics

HIV/AIDS Initiatives: DESPR

- Seek, Test, Treat & Retain: Addressing HIV among Vulnerable Populations
 - Data harmonization
- Juvenile Justice – Translational Research on Interventions for Adolescents in the Legal System (JJ Trials)
- Drug Use Prevention, Addiction Treatment, and HIV in an Era of Health Care Reform (RFA)
- Integration of prevention services in health care settings

2014 Expansion of HIV and AIDS-Research within the Context of Drug & Alcohol Abuse

- HIV/AIDS and substance use among the homeless and unstably housed ([RFA-DA-14-009](#))
- HIV/AIDS and Substance Use among Black/African American Women and Young MSM ([RFA-DA-14-010](#))
- Integrating substance abuse and HIV prevention and treatment within HIV/AIDS service delivery settings ([RFA-DA-14-011](#))
- Comorbid HIV, chronic pain, and substance use among older adults ([RFA-DA-14-012](#))

Technology Research

- Mobile technology
- Text messaging
- Virtual technologies
- Interactive videos
- Interactive voice response
- Gaming/Video games
- Online technologies
- Social media technologies
- Real-time data collection and interventions
- Remote tracking and monitoring systems/technologies
- Geolocation tools/technologies
- Social network technologies
- Sensors (physiological changes)
- Social media/Communications/Messaging

FOAs: Program Announcements

- HIV/AIDS, Drug Use, and Vulnerable Populations in the US - PA-12-280 (R21); PA-12-281 (R01)
- **AIDS-Science Track Award for Research Transition - PA-12-282 (R03)***
- Ethical Issues in Research on HIV/AIDS and its Comorbidities - PAR-12-243 (R21); PAR-12-244 (R01)
- **Development and Testing of Novel Interventions to Improve HIV Prevention, Care, and Program Implementation - PA-12-231 (R34)***

FOAs: Program Announcements

- Cohort Studies of HIV/AIDS and Substance Use - PAR-12-222 (U01)
- **Pilot and Feasibility Studies in Preparation for Drug and Alcohol Abuse Prevention Trials - PA-12-171 (R34)***
- Multidisciplinary Studies of HIV/AIDS and Aging - PAR-12-176 (R03); PAR-12-174 (R21); 12-175 (R01);
- International Research Collaboration on Drug Abuse and Addiction Research - PA-12-041 (R21); PA-12-040 (R01)

FOAs: Program Announcements

- Mechanistic Studies of HIV-exposed Seronegative Individuals - PA-11-218 (R01)
- HIV Infection of the Central Nervous System - PA-11-014 (R01)
- **Drug Abuse Aspects of HIV/AIDS - PA-12-294 (R03); PA-12-295 (R21); PA-12-293 (R01)***
- Limited Competition: Fogarty HIV Research Training Program for Low-and Middle-Income Country Institutions - PAR-13-126 (D43)
- **Increased Knowledge and Innovative Strategies to Reduce HIV Incidence - iKnow Projects - PAR-13-323 (R01)***

FOAs: Program Announcements

- **NIH/PEPFAR Collaboration for Implementation Science (Admin Supp) - PA-14-024***
- Centers for AIDS Research and Developmental Centers for AIDS Research - PAR-14-041 (P30)
- Substance Use and Abuse, Risky Decision Making and HIV/AIDS - PA-14-063 (R03); PA-14-062 (R21); PA-14-061 (R01)
- **Technology-Based Interventions to Promote Engagement in Care and Treatment Adherence for Substance Abusing Populations with HIV - PA-12-117 (R01)***

Use of Technology: Challenges/Considerations/ Question

- Data security
- Confidentiality
- Ethics
- Do technology interventions have same effects? What are the limitations/limits of technology?
- When are in-person interventions/interactions necessary?
- For whom do technologies not work? Work best?
- How to keep current and/or ahead of evolving technologies?
- What are the right measures/evaluation?
- Feasibility, acceptability, efficacy, effectiveness?
- Best practices for adaptation of effective interventions for dissemination and implementation using new technologies
- Unknowns

Advantages

- Anonymity
- Cost
- Reach
- Appeal
- Ability to handle complexities
- Tailoring interventions/services

Considerations

- Users:
 - Patients
 - Providers
 - Key family or social supports
- Need for collaboration among researchers, service providers and communication and computer technology experts (other disciplines).

Special Issue: AIDS Research and Treatment; Volume 2013

Using Mobile Health Technology to Improve HIV Care for Persons Living with HIV and Substance Abuse

- mHealth: Great promise for HIV care, treatment adherence (AND prevention).
- Future directions:
 - Development of theoretical frameworks
 - Refinement of real-time data collection and analysis procedures
 - Identification of best methods for delivering context-specific interventions
 - Maintaining confidentiality
 - Determining effectiveness

Special Issue: AIDS Research and Treatment; Volume 2013

- Challenges
 - Data security
 - Staying current with evolving technologies
 - Best practices for collaboration and interaction with market-driven industry partners

Kirk et al., 2013

Summary and Final Thoughts

- Technology Research for HIV prevention and care – developing area
- Interest
- Funding opportunities and future directions
- Be sure to reach out to NIDA Program staff