



NIDA Fosters International Research and Collaborations

Jack Stein, PhD, MSW, National Institute on Drug Abuse, and Steven W. Gust, PhD, National Institute on Drug Abuse

Risk factors for substance use, as well as government policies and resources for prevention and treatment of substance use disorders (SUD), vary widely among countries. But substance use and its health consequences occur everywhere, in every culture, environment, and government system. Addressing drug use and the health problems that stem from it depends upon multinational cooperation.

As one of the world's largest funders of research on drug misuse and addiction, the National Institute on Drug Abuse (NIDA) has recognized from its beginning that it has an important role to play in raising international awareness about these issues and even in supporting international research to address them. In 1990, we established our first fellowship program to address the lack of sufficient research capacity in low-to-middle-income countries (LMICs) to help address the global public health challenge of drug misuse.

NIDA's International Program helps address public health issues related to SUDs around the globe and promotes evidence-based policies, prevention interventions, and treatments. It builds partnerships with countries, organizations, and individual researchers to promote new research initiatives, build international research capacity, and disseminate knowledge.

Research Initiatives

Even in the challenging economic climate of the COVID-19 pandemic, NIDA remains committed to supporting innovative research to expand scientific knowledge that leaders and policymakers everywhere can use to deliver more effective prevention and treatment interventions in their countries.

NIDA-funded research has greatly expanded science's understanding of SUDs. We know that substance use disrupts the brain circuits involved in reward, decision-making, learning, and self-control and that complex biological, social, environmental, and developmental factors dynamically interact to influence risk, trajectory, and treatment outcomes. NIDA-funded scientists have developed effective prevention and treatment interventions. But much more is needed, such as the need to develop a wider array of treatment options as well as new service delivery mechanisms to address SUDs from detoxification to recovery support and relapse prevention.

Research has documented how diversity is a boon to science by

increasing creativity as well as improving decision making. Consequently, there are many scientific advantages to examining SUDs with varying cultural and national perspectives and scientific approaches. About 7% of the NIDA research budget supports projects conducted in other countries. More than 90% of those international grants are awarded to teams of U.S. and international researchers who take advantage of unusual opportunities outside the United States to access talent, resources, populations, or environmental conditions not available domestically. For example, different countries' drug policies—marijuana legalization in Canada or France's expanded access to buprenorphine, for instance—create natural experiments from which we can learn a great deal through multinational collaborative research.

Like NAADAC, the NIDA International Program has been an active partner with the U.S. Department of State Bureau of International Narcotics and Law Enforcement Affairs, the International Society of Substance Use Prevention and Treatment Professionals (ISSUP), the Colombo Plan, the Global Centre for Credentialing and Certification, and the Society for Prevention Research to train addiction professionals around the world. NIDA staff, grantees, and former fellows joined with NAADAC members and international experts to draft, review, and launch universal treatment and prevention curricula. This global effort led the United Nations Office on Drugs and Crime (UNODC) and the World Health Organization (WHO) to issue the International Standards for the Treatment of Drug Use Disorders in 2020. NIDA grantees and former fellows lead ISSUP national chapters and are members of the newly formed ISSUP Quality in Treatment Network, which shares best practices and promotes quality assurance in SUD treatment programs.

Highly trained international scientists and treatment providers whose backgrounds and training opportunities differ from those of their American colleagues bring a unique perspective to NIDA's research efforts. This spring, NIDA will issue a Notice of Special Interest (NOSI) encouraging international collaboration on SUD research using an expanded number and type of research grants. The goal is to encourage researchers to form partnerships that develop knowledge jointly that neither partner could have discovered independently.

These kinds of collaborative research projects have improved pharmacological and behavioral treatment options by demonstrating how

differences in policies and treatment practices can promote treatment seeking and improve access to services and outcomes. For instance, NIDA-supported researchers in the U.S. and Russia conducted studies that led to FDA approval of extended-release naltrexone to treat opioid use disorder. Animal studies by U.S. and French researchers are shedding new light on the sex-specific behavioral effects of adolescent cannabis use and developmental delays caused by perinatal cannabis exposure. And NIDA-supported researchers in Argentina, Chile, United States, and Uruguay conducted natural experiments on the effect of marijuana legalization, providing empirical evidence to guide future policy decisions.

Building International Research Capacity

The NIDA International Program builds international research capacity through four postdoctoral fellowship programs, a fellowship for midcareer substance use professionals from eligible countries, and two professional development programs for senior scientists. Since 1990, the NIDA International Program has supported more than 530 postdoctoral, midcareer, and senior scientist fellows from 114 countries.

NIDA International Program fellows form the core of local, regional, national, and international networks that extend the reach of NIDA's research and implement evidence-based interventions around the world. Former fellows now work with governmental, academic, and nongovernmental organizations conducting and publishing peer-reviewed research, teaching, and administering addiction treatment and prevention programs. Former NIDA fellows also shape global drug policies by serving on expert panels or working for international organizations such as the Colombo Plan Drug Advisory Programme, European Union, United Nations, and WHO.

The NIDA International Visiting Scientists and Technical Exchange Program (INVEST) Drug Abuse Research Fellowships provide 12 months of mentored postdoctoral research training for scientists from other countries. There are four types of INVEST Fellowships: one for scientists working in any area of NIDA-supported research and three focused on clinical trials, prevention, or neuroscience, respectively.

NIDA Hubert H. Humphrey Drug Abuse Research Fellowships are a component of a State Department program that provides ten months of academic study for young and midcareer professionals from eligible countries. NIDA Humphrey Fellows are most often treatment providers or prevention program administrators. Fellows study at Virginia Commonwealth University and participate in professional development activities such as short-term affiliations with researchers or treatment professionals, meetings with NIDA officials, and connections with NIDA grantees interested in collaboration.

Senior scientists from other countries use the Distinguished International Scientist Collaboration Award (DISCA) to support short-term exchange visits to launch or complete joint research projects. Their American partners use the companion USDISCA program.

Disseminating Knowledge

The International Program disseminates information to the international scientific community through scientific meetings and a variety of electronic and print media.

The International Program's premier scientific meeting, the NIDA International Forum, is held annually in June in conjunction with the annual meeting of the College on Problems of Drug Dependence (CPDD).

This meeting highlights the range and quality of drug misuse and addiction research conducted around the world and helps participants build research partnerships across geographic borders and scientific disciplines. This year's event will be held virtually June 22-24, 2021.

The International Program website is our primary source of information for researchers and the general public. It has innovative databases to help identify international researchers, including their locations and research areas. An interactive fellowship map allows users to identify NIDA fellowship alumni from a particular country or fellowship program and to link from individual fellows to their journal articles indexed in the National Library of Medicine's PubMed database. The NIDA International Drug Abuse Research Abstract Database allows users to search for abstracts of presentations from meetings hosted by the NIDA International Program since 2003.

Additionally, the NIDA International E-News provides information about recent Institute activities, funding opportunities, International Program fellowships, and NIDA-supported scientific meetings.

Research findings from any particular country may have important implications for best practices in drug use and addiction policy, prevention, and treatment elsewhere. NIDA's international research into implementation of evidence-based prevention and treatment interventions in settings with limited resources is applicable to both international settings and those U.S. regions that face similar structural, legal, or fiscal constraints—and vice versa. Leveraging the global network of scientific experts and treatment providers will help NIDA ensure that we all learn from one another's successes and failures, advance science on the causes and consequences of substance use, and apply that knowledge to improve individual and public health.

As NAADAC has been expanding globally in recent years, NIDA's International Program is excited about the prospect of potential collaboration, to help further dissemination and to inform research. We invite NAADAC members to share their priorities with NIDA and participate in the NIDA International Forum, where we can share priorities and develop strategies to promote global adoption of evidence-based interventions.

Reference

Phillips, K.W. (October 2014). How Diversity Works. *Scientific American* 311(4): 42-47. doi:10.1038/scientificamerican1014-42.



Steven W. Gust, PhD, has directed the National Institute on Drug Abuse (NIDA) International Program since 1999. He is responsible for the Institute's efforts to foster collaborative and peer-reviewed international research and promote cooperation between NIDA and other U.S. and foreign agencies, governments, and non-governmental organizations. Gust also leads the Institute's efforts to support international research and training. He joined NIDA in 1986. In 1993, Gust received a prestigious appointment as a congressional fellow, where he worked with the U.S. Senate Labor and Human Resources Committee. In addition to receiving numerous Public Health Service and National Institutes of Health awards, Gust has been honored by the National Institutes of Health, College on Problems of Drug Dependence, Society for Prevention Research, and National Hispanic Science Network. Gust holds a Doctoral degree in Psychology from the University of Minnesota.



Jack Stein, PhD, MSW, joined the National Institute on Drug Abuse (NIDA) in August 2012 as the Director of the Office of Science Policy and Communications (OSPC). In addition to this position, Stein was appointed the NIDA Chief of Staff in March 2019. He has over two decades of professional experience in leading national drug and HIV-related research, practice, and policy initiatives for NIDA, The Substance Abuse and Mental Health Services Administration (SAMHSA) and the Office of National Drug Control Policy (ONDCP) where, before coming back to NIDA, he served as the Chief of the Prevention Branch.