

# **NIDA International Program**

**Fiscal Year 2005  
Annual Report Summary**



**National Institute on Drug Abuse  
National Institutes of Health  
U.S. Department of Health and Human Services**

The National Institute on Drug Abuse (NIDA) has incorporated international research and training activities as part of its mission since the Institute's inception, beginning with simple information exchanges and progressing to an integrated International Program whose activities both foster international cooperation on biomedical and behavioral research into drug abuse and related health consequences and promote the research priorities set by NIDA's divisions, centers, programs, and offices. New initiatives focus on high-impact priority areas, and resources are leveraged through partnerships with other National Institutes of Health (NIH) Institutes, international governments, and affiliated research organizations. The International Program now leads a network of scientists who function as full partners with their NIDA-supported U.S. peers to collaborate on drug abuse research nationally, regionally, and globally. Exhibit 1, Fiscal Year 2005 International Program Activities, summarizes the activities the NIDA International Program supports to contribute successfully to the NIDA research mission. As the International Program and its partners matured, the breadth and scope of NIDA's international activities have expanded to focus on:

- Encouraging rigorous collaborative and peer-reviewed international research.
- Building research capacity and providing professional development opportunities for the international drug abuse research community.
- Disseminating NIDA's research methods, findings, and tools to international scientists and organizations.

**Exhibit 1 – Fiscal Year 2005 NIDA International Program Activities**

Category	Number of Activities	Number of Countries
International Research Activities		
• Administrative Supplements	16	9
• Domestic Grants with Foreign Components	180	48
• Direct Foreign Grants	27	10
• Binational Agreements	4	4
• Grants Awarded by Interagency Funding Agreements	61	
Fellowships and Research Exchanges		
• DISCA/USDISCA	2	2
• INVEST Fellowships	4	4
• NIDA Hubert H. Humphrey Fellowships	8	8
• WHO/NIDA/CPDD International Traveling Fellowships	2	2
Scientific Exchange and Capacity Building		
• International Program Meetings	1	1
• Symposia	8	8
• Travel Support		
– NIDA Grantees	13	8
– Foreign Researchers	25	3

## Encouraging International Research

NIDA supports research on the biomedical and behavioral causes, consequences, prevention, and treatment of drug abuse and addiction. During Fiscal Year 2005, NIDA used administrative supplements, domestic grants with a foreign component, and direct foreign grants to provide support for more than 200 international research projects in 48 nations. The Institute also supported 61 international research projects through interagency funding agreements with the Fogarty International Center, the National Institute of Allergy and Infectious Diseases, the National Institute of Child Health and Human Development, and the National Institute of Mental Health.

In 2002, the International Program issued a Program Announcement, *PAS-03-023 International Research Collaboration on Drug Addiction*, which expired shortly after the end of Fiscal Year 2005. During the life of the Program Announcement, 6 projects received \$3.7 million:

- Interventions with HIV+ and HIV Injection Drug Users (IDUs) in Ukraine
- Heroin Addiction Treatment: Naltrexone and Lofexidine
- Transporting Behavioral Treatment for IDUs in Ukraine
- Epidemiology of HIV and BBVs Among IDUs in Tijuana
- Cognitive Behavioral Therapy for South Africa
- Addiction Treatment in Russia: Oral and Depot Naltrexone

Continuing the uniquely successful model of joint funding for binational collaborative research, the NIDA International Program and The Netherlands Organization for Health Research and Development (ZonMw) agreed to support three new research projects during Fiscal Year 2005. The joint scientific reviews conducted by the separate U.S. and Dutch funding agencies ensure that each binational research project meets the individual nation's research criteria and priorities; the joint funding permits NIDA and ZONMw to expand the impact of their scarce financial resources. NIDA provides support to the U.S. researcher and ZonMw provides support to the Dutch scientist for the following projects:

- Brain Development of Adolescent Marijuana Users – Robert I. Block, University of Iowa, and Nick F. Ramsey, Rudolf Magnus Institute of Neuroscience, Utrecht, are using fMRI and cognition-related tests in chronic marijuana users and controls to investigate the possible effect of marijuana on the developing brains of 12- to 17-year-olds.
- Preventing Adolescent Marijuana Use Using the *Communities That Care (CTC)* Model – David Hawkins, University of Washington, and Hans Boutellier, Verwey-Jonker Institute, Utrecht, are comparing prevalence and predictors of marijuana use and examining the implementation and effectiveness of the CTC model in different cultural and policy contexts.

- Decision-Making and Adolescent Substance Use – John E. Lochman, University of Alabama, and Walter Matthys, Rudolf Magnus Institute of Neuroscience, Utrecht, are studying decision-making in aggressive and behaviorally disordered children to determine if better decision-making mediates the effectiveness of the Coping Power prevention intervention.

During Fiscal Year 2005, scientists participating in International Program activities published more than 100 articles in scientific journals. The effects of NIDA's outstanding training and professional development programs for international researchers are clearly evident: 33 former NIDA INVEST and Humphrey Drug Abuse Research Fellows authored or coauthored 102 scientific articles in 72 journals, as summarized in Exhibit 2 – Fiscal Year 2005 International Program Publications by Former Fellows. In addition, researchers supported by NIDA domestic grants with foreign components or direct foreign grants published 22 other articles in scientific journals. The science-based information generated by International Program alumni and NIDA-supported researchers contributes to international efforts to develop, adopt, and evaluate government policies, prevention programs, and treatment protocols that effectively address drug abuse and its consequences. International collaborations introduce NIDA grantees to new perspectives and differing attitudes about the fundamentals of drug abuse research. Highly trained scientists from other nations bring unique insights to the Institute's research efforts. National variations also provide NIDA grantees with opportunities to study aspects of drug abuse not available in the United States and to examine the effect of national differences in such areas as policies, drug-using populations, abused drugs, patterns of abuse, special populations, prevention programs, and treatment protocols.

## Building Research Capacity

**Web-Based Research Tools** – Recognizing the potential of the Internet to deliver relatively low-cost research training and education programs, the International Program is developing a set of Web-based research resources for its international constituencies. The International Program partnered with the International Society of Addiction Journal Editors to provide seed money for the development of a Web site, <http://www.PARINT.org>, to assist international researchers in publishing their results. The International Program issued a Phase 1 Small Business Innovation Research (SBIR) award to support development of an interactive and user-friendly Web site for the international drug abuse research community that will include training modules tailored for an international audience and links to other resources, including funding opportunities, a partnering database, and a road map to NIDA resources. A second SBIR award supported development of effective, science-based, drug abuse training modules that meet the linguistic, cultural, and technological needs of NIDA's international research collaborators with a versatile and robust E-Learning delivery technology. The International Program also began updating its manual for international audiences describing U.S. research demonstrating the effectiveness of methadone and buprenorphine in reducing opiate use and its consequences, particularly HIV risk behaviors.

**Exhibit 2 – Fiscal Year 2005 International Program Publications (N=102) by Former Fellows\***

Publication (N=72)	Former NIDA Fellow (N=33)	Fellow's Home Country (N=21)	Year of Fellowship
Acta Diabetologica	Martin-Kleiner, Irena	Croatia	1995-1996
Addiction	Obot, Isidore S.	Nigeria	1991-1992
Addictive Behaviors	Borges, Guilherme	Mexico	1997-1998
	Morojele, Neo	South Africa	1998-1999
	Lee, Chung Tai	South Korea	1994-1995
Alcohol	Borges, Guilherme	Mexico	1997-1998
American Journal on Addictions	Basu, Debasish	India	2001-2002
American Journal of Forensic Medicine and Pathology	de Andrade, Arthur Guerra	Brazil	1991-1992
Biochemical and Biophysical Research Communications	Wang, Danxin	China	1996-1997
Biological Psychiatry	Bortolato, Marco	Italy	2004-2005
Bioorganic and Medicinal Chemistry	McGaraughty, Steve	Canada	1995-1996
	Tsai, Wei-Jen	Taiwan	1992-1993
Bipolar Disorders	Basu, Debasish	India	2001-2002
Brain Research	Liu, Chuang (2)**	China	2000-2001
	Wan, You	China	1998-1999
	Zernig, Gerald	Austria	1993-1994
Brain Research Bulletin	Jain, Raka	India	1996-1997
Brain Research. Brain Research Reviews	Xi, ZhengXiong	China	1995-1996
British Journal of Pharmacology	McGaraughty, Steve	Canada	1995-1996
Bulletin of the World Health Organization	Obot, Isidore S.	Nigeria	1991-1992
Cadernos de Saúde Pública	Pechansky, Flavio	Brazil	1993-1994
Cell	Druid, Henrik	Sweden	2000-2001
Cell Biochemistry and Function	Ulug, Berna	Turkey	1995-1996
Cerebral Cortex	Husson, Isabelle	France	2002-2003
Clinical Chemistry	Zernig, Gerald	Austria	1993-1994
Current Topics in Medicinal Chemistry	McGaraughty, Steve	Canada	1995-1996
Developmental Neuroscience	Husson, Isabelle	France	2002-2003
Dialogues in Clinical Neuroscience	Zernig, Gerald	Austria	1993-1994
Drug and Alcohol Dependence	Borges, Guilherme (2)**	Mexico	1997-1998
	Druid, Henrik	Sweden	2000-2001
	Obando, Patricia	Costa Rica	2001-2002
	Lawental, Eli	Israel	1993-1994
European Journal of Neuroscience	Manzoni, Olivier	France	1997-1998
	Xi, ZhengXiong	China	1995-1996
European Journal of Pharmacology	Bespalov, Anton (3)**	Russia	1994-1995
	Cruz, Silvia (2)**	Mexico	1996-1997
European Neuropsychopharmacology	Bespalov, Anton (2)**	Russia	1994-1995
Experimental Neurology	Wan, You	China	1998-1999
Indian Journal of Experimental Biology	Amit Chakrabarti (2)**	India	2002-2003
International Archives of Occupational and Environmental Health	Hammal, Fadi	Syria	2005-2006
International Journal of Epidemiology	Morojele, Neo	South Africa	1998-1999
International Journal of Behavioral Medicine	Morojele, Neo	South Africa	1998-1999
JAMA: Journal of the American Medical Association	Borges, Guilherme	Mexico	1997-1998
Journal of Analytical Toxicology	Druid, Henrik	Sweden	2000-2001
Journal of Biological Chemistry	Wang, Danxin	China	1996-1997
Journal of the Chinese Medical Association	Tsai, Wei-Jen	Taiwan	1992-1993

**Exhibit 2 – Fiscal Year 2005 International Program Publications (N=102) by Former Fellows\* (continued)**

Publication (N=72)	Former NIDA Fellow (N=33)	Fellow's Home Country (N=21)	Year of Fellowship
Journal of the Indian Medical Association	Basu, Debasish	India	2001-2002
Journal of Medical Systems	Chen, Yufeng	China	2003-2004
Journal of Nervous and Mental Disease	Pechansky, Flavio	Brazil	1993-1994
Journal of Neurophysiology	McGaraughty, Steve	Canada	1995-1996
Journal of Neuroscience	Manzoni, Olivier	France	1997-1998
Journal of Neuroscience Methods	Manzoni, Olivier	France	1997-1998
Journal of Neuroscience Research	Husson, Isabelle	France	2002-2003
	Wan, You	China	1998-1999
Journal of Pharmacology and Experimental Therapeutics	Husson, Isabelle	France	2002-2003
	Wang, Danxin	China	1996-1997
Journal of Psychiatric Research	Lee, Chung Tai	South Korea	1994-1995
Journal of Psychopharmacology	Zernig, Gerald	Austria	1993-1994
Journal of Studies on Alcohol	Borges, Guilherme (2)**	Mexico	1997-1998
Journal of Substance Abuse Treatment	Basu, Debasish	India	2001-2002
Journal of Urban Health	Zhao, Min	China	2001-2002
Life Sciences	Wang, Danxin	China	1996-1997
	Tsai, Wei-Jen	Taiwan	1992-1993
Molecular Pharmacology	Wang, Danxin	China	1996-1997
Nature	Druid, Henrik	Sweden	2000-2001
Neuropsychopharmacology	Bortolato, Marco	Italy	2004-2005
	Nikulina, Ella (2)**	Russia	1994-1995
	Xi, ZhengXiong	China	1995-1996
Neuroscience	McGaraughty, Steve	Canada	1995-1996
Neuroscience Letters	McGaraughty, Steve	Canada	1995-1996
	Wan, You (2)**	China	1998-1999
New England Journal of Medicine	Basu, Debasish	India	2001-2002
Nicotine and Tobacco Research	Hammal, Fadi	Syria	2005-2006
Nordic Journal of Psychiatry	Pajulo, Marjaterstu	Finland	2003-2004
Peptides	Wan, You	China	1998-1999
Pharmacogenetics and Genomics	Wang, Danxin	China	1996-1997
Pharmacology	Zernig, Gerald	Austria	1993-1994
Pharmacology and Therapeutics	Wang, Danxin	China	1996-1997
Pharmacopsychiatry	Zernig, Gerald	Austria	1993-1994
Psychiatric Genetics	Lee, Chung Tai	South Korea	1994-1995
Psychological Medicine	Borges, Guilherme	Mexico	1997-1998
Psychological Reports	Morojele, Neo	South Africa	1998-1999
Psychopharmacology	Bespalov, Anton (2)**	Russia	1994-1995
	Bortolato, Marco	Italy	2004-2005
	Zernig, Gerald	Austria	1993-1994
Revista Brasileira de Psiquiatria	de Andrade, Arthur Guerra	Brazil	1991-1992
	Stempliuk, Vladimir	Brazil	2003-2004
Social Science and Medicine	Morojele, Neo	South Africa	1998-1999
Synapse	Xi, ZhengXiong	China	1995-1996
Therapeutic Drug Monitoring	Zernig, Gerald	Austria	1993-1994
Tropical Medicine and International Health	Nsimba, Stephen	Tanzania	2005-2006

\* As indexed in PubMed \*\*Multiple articles published in this journal

**Fellowships and Research Exchanges** – NIDA International Program Fellowships provide unparalleled research training, while Research Exchange Programs support direct collaborations between NIDA grantees and their colleagues from other countries. Distinguished International Scientist Collaboration Awards (DISCA and USDISCA) support 1- to 3-month research exchange visits between senior scientists and NIDA grantees. Dr. Min Zhao, Shanghai Drug Abuse Treatment Center, China, worked with Dr. Clyde B. McCoy, University of Miami, to investigate HIV/AIDS prevention interventions among intravenous drug users. Dr. Luc Denoroy, Université Claude Bernard, France, worked with Dr. Toni Shippenberg, NIDA Intramural Research Program, to combine Dr. Denoroy's technique to monitor rapid changes in the extracellular concentration of neurotransmitters with Intramural Research Program animal studies using microdialysis and intravenous drug self-administration.

INVEST Drug Abuse Research Fellows spend a year conducting mentored postdoctoral research with NIDA grantees in the United States. During Fiscal Year 2005, the four NIDA INVEST Research Fellows were:

- Dr. Tsafirir Loeb, Geha Mental Health Center, Israel, who conducted research on treatment modalities and outcomes with Dr. David R. Gastfriend, Massachusetts General Hospital.
- Dr. Maciej Stasiak, Nencki Institute of Experimental Biology, Poland, who investigated pharmacological and behavioral therapies to reduce cocaine seeking by rats with Dr. Nicholas E. Goeders, Louisiana State University – Shreveport.
- Dr. Oscar Quintela, University of Santiago de Compostela, Spain, who developed testing procedures for drugged drivers through the NIDA-UNODC Road Site Testing Assessment (ROSITA) Project with Dr. J. Michael Walsh, The Walsh Group, and Mr. Dennis Crouch, University of Utah.
- Dr. Young Hoon Sung, Seoul National University Hospital, South Korea, who conducted imaging studies comparing cortical gray matter thickness and voxel-based morphometry among subjects with opiate, cocaine, and methamphetamine dependence with Dr. Perry F. Renshaw, Harvard Medical School.

NIDA and the World Health Organization (WHO) cosponsor the WHO/NIDA/CPDD International Traveling Fellowship in conjunction with the Congress on Problems of Drug Dependence (CPDD) to support the participation of international researchers at the NIDA International Forum and the CPDD Annual Scientific Meeting. The Fellowship also supports brief research visits by the Fellows with NIDA grantees in the United States. Dr. Paulo Cunha, University of São Paulo, Brazil, investigated the long-term effects of drugs of abuse on neurocognition with Dr. Jean Lud Cadet, NIDA Intramural Research Program, and sleep disturbance in marijuana withdrawal with Dr. Karen I. Bolla, Johns Hopkins University. Dr. Raka Jain, All India Institute of Medical Sciences, worked with Dr. Mike Baumann, NIDA Intramural Research Program, on *in vivo* microdialysis techniques to correlate behavioral changes with neurotransmitter release rates.

The NIDA International Program also sponsors a unique component of a U.S. Department of State Fulbright Fellowship program. NIDA Hubert H. Humphrey Drug Abuse Research Fellowships are competitive, 10-month fellowships for midcareer professionals from low- and middle-income countries. Fellows enroll at a preeminent U.S. university, complete a research affiliation with a NIDA grantee, participate in scientific meetings, and attend NIDA orientations. The Fiscal Year 2005 NIDA Humphrey Fellows were Monica Siqueira Malta, Brazil; Susanna L Moneva, Bulgaria; Nael Mostafa Hasan, Egypt; Arun Kumar Sharma, India; Charlton Easton Collie, Jamaica; Kholá Iram, Pakistan; Venera Zakirova, Russia; and Irena Jakovljevic, Serbia and Montenegro. The NIDA International Program portfolio of fellowship and research exchange programs helps increase research capacity to address addiction and related health issues around the world.

### **Disseminating Information**

**International Cooperation and Symposia** – The NIDA International Program works closely with several international organizations to promote collaborative research and information exchange, particularly WHO, the United Nations Office on Drugs and Crime (UNODC), and UNAIDS. In Fiscal Year 2005, NIDA also worked with *Foresight*, the British government’s science-based think tank, to disseminate results from the group’s Brain Science, Addiction, and Drugs Project. By sponsoring symposia or workshops at major scientific meetings, the NIDA International Program disseminates information about the Institute’s research methods, findings, and tools to international scientists and organizations. During Fiscal Year 2005, the NIDA International Program supported symposia at the following scientific meetings: American Psychological Association; International Council on Alcohol, Drugs and Traffic Safety; International Society of Addiction Medicine; National Hispanic Science Network on Drug Abuse; Neurochemistry Winter Conference; Substance Abuse Librarians and Information Specialists Conference; United States Institute of Peace; and World Association for Social Psychiatry.

The International Program also facilitates the exchange of scientific information by providing limited support for travel and meeting registration expenses to talented researchers from the United States and other countries who attend major scientific meetings throughout the world. During Fiscal Year 2005, 13 NIDA grantees participated in eight scientific meetings in 8 nations and 25 foreign researchers from 22 nations participated in five scientific meetings in 3 nations. In addition, the International Program occasionally provides travel support for scientists to conduct brief research visits with colleagues in other nations. During Fiscal Year 2005, the International Program provided travel support for former NIDA INVEST Fellow Dr. Marco Bortolato, Italy, to visit colleagues at the NIDA Intramural Research Program for collaborative studies on levels of the endogenous cannabinoid anandamide and levels of FAAH enzyme activity in selected brain areas of squirrel monkeys.

**NIDA International Forum** – Each year, the NIDA International Program organizes the NIDA International Forum, a satellite to the annual meeting of CPDD. This unique scientific meeting allows participants to assess drug abuse trends and issues, strengthen existing research collaborations,



identify potential partners and new topics for cooperation, consult with NIDA officials and grantees, review new research methodologies, learn about drug abuse research and policy issues in other countries, and discuss NIDA-supported fellowships and other programs that can support international collaborations. A total of 280 participants from 46 nations participated in the 2005 NIDA International Forum, which was held June 17-20, 2005, in Orlando, Florida. More than half of those registered presented their research findings at a joint NIDA International Forum poster session and CPDD workshop that allowed attendees from both meetings to learn about drug abuse research conducted outside the United States. The Forum's 1-day symposium, *Linking Drug Abuse and HIV/AIDS Research*, featured a discussion of emerging issues, responses, and research priorities to address the intertwined epidemics of drug addiction and HIV/AIDS. Other plenary speakers discussed creating and conducting collaborative research programs by using varied support mechanisms. Workshops featured interactive discussions about writing journal articles, adapting the Addiction Severity Index across cultures, and prioritizing HIV/AIDS research needs in drug abuse treatment settings.

**Information Dissemination** – To better serve its growing network of drug abuse professionals around the world, the NIDA International Program switched from snail mail to e-mail. In Fiscal Year 2005, a new e-mail listserv replaced a printed, quarterly information newsletter. The listserv is issued every other month to provide the international drug abuse research community with Web links to information about recent NIDA activities, funding opportunities, International Program research training and exchange programs, NIDA-supported scientific meetings, and public announcements from NIDA and NIH. The NIDA International Program also introduced a new Web page, <http://www.international.drugabuse.gov>, which streamlines access to information about the Institute's activities in the international drug abuse research community. Sections focus on announcements, research training and exchange opportunities, research funding, and information and resources for researchers. Past issues of the new International Program E-News Letter are archived on the site. By supporting international research meetings, NIDA ensures that the scientific evidence generated by its grantees and Fellows is disseminated around the world. During Fiscal Year 2005, the International Program created an easily changed, portable conference exhibit that allows NIDA to maximize its visibility as a meeting sponsor and convey details about Institute research, training, and exchange programs that is specifically targeted to meeting participants.

## Measuring Success

Success in scientific endeavours is rarely a single stunning accomplishment, but more frequently a gradual accumulation of incremental advances in knowledge that combine to change our basic understanding of complex, interrelated subjects. Scientists do measure those small successes, usually by assessing a research team's contributions to peer-reviewed publications and scientific meetings, the nature and source of the team's financial support, and the frequency of their cooperation with international organizations such as WHO. As Exhibit 3, Summary of NIDA International Program Fiscal Year 2005 Accomplishments, demonstrates, the NIDA International Program contributes to the scientific community in every area—through more than 100 peer-reviewed publications, presentations at major scientific meetings, NIDA research grant awards, and participation in major international initiatives. The NIDA International Program's accomplishments during Fiscal Year 2005 provide a road map for future activities.

## Exhibit 3 – Summary of NIDA International Program Fiscal Year 2005 Accomplishments

### Research Funding

- 209 international research projects funded in 48 nations
- PAS-03-023, International Research Collaboration on Drug Addiction
  - › 6 projects funded for \$3.7 million
    - Interventions with HIV+ and HIV- IDUs in Ukraine
    - Heroin Addiction Treatment: Naltrexone and Lofexidine
    - Transporting Behavioral Treatment for IDUs in Ukraine
    - Epidemiology of HIV and BBVs among IDUs in Tijuana
    - Cognitive Behavioral Therapy for South Africa
    - Addiction Treatment in Russia: Oral and Depot Naltrexone

### Research Publications

- 102 articles published by 33 former INVEST or HHH Fellows in 72 journals
- 22 articles published by NIDA grantees supported by domestic grants with foreign components or direct foreign grants



### Binational Agreements

- U.S. – Netherlands
  - › Binational Meeting May 19-20, Baltimore, Maryland, U.S.A.
  - › Updates on 7 previously funded collaborative projects
  - › Site visit to NIDA's Intramural Research Program
  - › 3 New Administrative Supplements to Support Collaborative Research in the United States and The Netherlands (NOT-DA-05-002)
    - Brain development of adolescent marijuana users
    - Preventing adolescent marijuana use using the *Communities That Care* model
    - Decision-making and adolescent substance use
- U.S. – Spain
  - › Arizona State University and University of Santiago de Compostela pilot study on drug abuse prevention among Spanish students; R01 application submitted
  - › NIDA article summarizing tools for collaboration published in Spanish scientific journal, *Trastornos adictivos*

### Building Research Capacity



- **Web-Based Research Tools**
  - › International Society of Addiction Journal Editors research publishing, <http://www.PARINT.org>
  - › SBIR: Drug Abuse Research Training for International Investigators
  - › SBIR: International Drug Abuse Researcher E-Learning Program
  - › Online Manual of Opioid Substitution Pharmacotherapies
  - › Distance Learning Initiative: International Master's Degree in Addiction Studies, preliminary support for Virginia Commonwealth University, Kings College at the University of London, and the University of Adelaide in Australia
- **Fellowships and Research Exchanges**
  - › DISCA/USDISCA
    - R01 application submitted, scientific article published, planned application to NIDA Research Center Grant Consolidated Program
    - Capillary electrophoresis with laser-induced fluorescence detection system installed at IRP; two protocols developed and validated to determine neurotransmitter levels in brain microdialysates; began training French students in NIDA's behavioral analysis methods; scientific article in preparation
  - › INVEST Fellows' Research Topics
    - Treatment modalities and outcomes using the ASAM Patient Placement Criteria; Motivational Enhancement Therapy
    - Reducing cocaine seeking in animal models
    - Testing procedures for drugged drivers through the ROSITA Project
    - Imaging studies among subjects with opiate, cocaine, and methamphetamine dependence
  - › WHO/NIDA/CPDD International Traveling Fellows
    - *In vivo* microdialysis techniques to correlate behavioral changes with neurotransmitter release rates
    - Imaging studies to assess the long-term effects of drugs of abuse on neurocognition; sleep disturbance in marijuana withdrawal
  - › Humphrey Fellows represent 8 nations
    - Brazil
    - Bulgaria
    - Egypt
    - India
    - Jamaica
    - Pakistan
    - Russia
    - Serbia & Montenegro



### Exhibit 3 – Summary of NIDA International Program Fiscal Year 2005 Accomplishments (continued)

#### Scientific Exchange

- National and International Organizations
  - › World Health Organization
  - › United Nations Office on Drugs and Crime
  - › UNAIDS
  - › *Foresight* Brain Science, Addiction and Drugs Project
- NIDA International Forum
  - › June 17-20, 2005, Orlando, Florida, U.S.A.
  - › 280 registrants from 46 nations
  - › Linking Drug Abuse and HIV/AIDS Research
  - › Creating and Conducting Collaborative Research Programs by Using Varied Support Mechanisms
  - › Interactive Discussions
    - Writing Journal Articles
    - Adapting the Addiction Severity Index Across Cultures
    - Prioritizing HIV/AIDS Research Needs in Drug Abuse Treatment Settings
- International Program-Supported Symposia
  - › American Psychological Association
  - › International Council on Alcohol, Drugs and Traffic Safety
  - › International Society of Addiction Medicine
  - › National Hispanic Science Network on Drug Abuse
  - › Neurochemistry Winter Conference
  - › Substance Abuse Librarians and Information Specialists Conference
  - › United States Institute of Peace
  - › World Association for Social Psychiatry



- Travel Support
  - › 13 NIDA grantees participated in 8 scientific meetings in 8 nations
  - › 25 foreign researchers from 22 nations participated in 5 scientific meetings in 3 nations
- Information Dissemination
  - › Web site redesigned
  - › E-Letter launched
  - › Exhibit developed





National Institute on Drug Abuse  
National Institutes of Health  
U.S. Department of Health and Human Services