It is with great pleasure that I write this, my first column, after taking over the Presidential reins from Dr. Steve Higgins at the end of the CPDD scientific meeting in June. I would like to thank Steve for his dedication and service to the College over this past year; he was an outstanding steward of the College during his tenure as President and is a wonderful colleague. As a member of the Board of Directors for the past three years and Executive Committee for the past two, I have been struck by two things that may not be self-evident to the general membership of the College. The first is the commitment of the membership to the missions of the College and the willingness to contribute valued volunteer time to advance the activities of the CPDD. One of the few responsibilities of the President-Elect is to coordinate the assignment of new committee members, starting with an initial call for volunteers from the membership. There are more than a dozen active committees conducting the work of the College, which are comprised of more than 130 active committee members and Chairs. The call for volunteers yielded a flood of e-mails from members interested in committing their service. It was possible to find assignments for nearly all of those who volunteered to serve. I would encourage those of you who are interested in increasing your participation to respond to Dr. Linda Porrino, President-Elect, when she sends out this year’s call for volunteers. Committee membership is often an opportunity to learn new things and make new friends and colleagues.

The second fact that is striking, and related to the first, is the remarkable breadth of activities in which the College engages through this commitment of time, creativity and intellect of its members. As the national election approaches in November, representing the first guaranteed change in the White House Administration in eight years, Dr. Bill Dewey, who founded and continues as President to lead the Friends of NIDA, is working along with the CPDD leadership to develop a White Paper that will be delivered to the transition teams for either Senator John McCain or Senator Barack Obama. This paper will provide specific recommendations for the newly elected President and his cabinet on legislative and budgetary actions that may improve the lives of those affected by drug abuse and addiction. It is of critical importance that government officials receive recommendations from informed organizations in order for empirical science to play a role in the development of policy and funding decisions. I want to offer both congratulations and heartfelt thanks to Dr. Dewey for his continued dedication, leadership and vision with the Friends of NIDA and to Dr. Geoff Mumford and Mr. Charles O’Keefe who have been essential to the success of this organization.

Another initiative that is underway by the College is the planning of a joint scientific meeting with the International Narcotics Research Conference (INRC). It

Continued on page 2
President’s Column continued from page 1

has been many years since the CPDD conference has been held in conjunction with the meeting of another scientific organization. It is hoped that this joint venture will lead to more transdisciplinary interactions, cross-fertilization of ideas and a synergism among scientists dedicated to the study of opioids. Dr. Sari Izenwasser, CPDD Program Chair, and Dr. Martin Adler, our Executive Officer, are working diligently with Dr. Lakshmi Devi, President of INRC, to develop a workable plan for integrating these two scientific meetings, which will be held in Hollywood, Florida in 2011. As a celebration of this venture, I have organized a Presidential Symposium for next year’s meeting in Reno, Nevada, along with assistance of Dr. Izenwasser and Dr. Ellen Unterwald, which will highlight recent critical advances in opioid research through a series of presentations by highly respected and internationally recognized scientists from INRC (see p. 11). I would encourage members who have suggestions or ideas about other possible joint meetings or satellite meetings to approach the Executive Office or Board of Directors.

Another major activity currently underway is the organization of a conference titled, “Risk Management and Post-Marketing Surveillance of CNS Drugs” that will be sponsored by the CPDD and held October 27-28, 2008 in Bethesda, MD. The planning committee, led by Dr. Robert Balster and Dr. Jack Henningfield, has worked diligently along with other CPDD members to develop a program that will provide expert review on contemporary risk management and post-marketing surveillance strategies. This is an issue of critical importance, as recently passed federal legislation (Risk Evaluation and Mitigation Strategies) has expanded provisions and authority to the Food and Drug Administration to mandate post-marketing safety-related activities and to incorporate these required post-marketing activities as part of the drug review process. This conference was designed to explore the empirical evidence on the science of risk management and post-marketing surveillance strategies with the aim of providing guidance and recommendations for optimal and effective methodological approaches. Chaired by Drs. Bob Schuster and Andrea Barthwell, it will include experts drawn from all of the stakeholders—those in academia, industry and government. It is expected that the conference will yield a series of excellent review papers along with a position piece to be published under the imprimatur of the College as a Special Issue of Drug and Alcohol Dependence.

I’ve chosen to share the activities described above to emphasize the breadth and diversity of our organization. This is by no means an exhaustive list of the many activities currently in progress led by College members. One of my goals as President is to take a proactive stance to ensure inclusion and participation by all of the College’s members. The CPDD is truly a multi-disciplinary organization—we were translational before anyone considered applying this descriptor to a new paradigm for science. The College membership includes preclinical scientists in chemistry, genetics, molecular neurobiology, behavioral pharmacology; and includes clinical scientists (physicians, other clinicians, and basic scientists) conducting research in the laboratory, the clinic and at the macro levels of services, systems and epidemiology. As a past-Chair of the Program Committee, I frequently heard complaints from individuals that their specific discipline in science was not adequately represented in the scientific program, and that others were overrepresented. The interesting

Meeting Deadlines
Proposals for Symposia and Workshops are due:
October 15, 2008
Abstracts are due:
December 1, 2008

Visit the CPDD website for submission forms, guidelines, and other meeting information http://www.cpdd.org

Continued on page 5
Demystifying CPDD Meeting Site Selection

It has been brought to our attention that many of you are curious about the process of selecting a hotel for CPDD's annual meeting. There are a number of factors that need to be considered, the most important of which are adequate meeting space, cost to CPDD, and cost to attendees. In addition, factors such as accessibility by air, climate, and sightseeing/activities of the venue come into play. With respect to meeting space, we look for resort properties that can accommodate the plenary session (theater-style seating for 800+) and 4 breakouts of 300 seats each, as well as exhibition space for about 100 double-sided poster boards (allowing for 12' aisles), and some tabletop exhibits. In terms of sleeping rooms, we need about 900, preferably all in one or two very closely situated hotels. These are the basic requirements that need to be met.

We try to avoid using convention centers, because we think that there is more potential for interaction among participants when we are staying in the same hotel and see one another during both the meeting and the time off from official meeting activities. In addition, extra costs are associated with the use of convention centers. Quebec City was the exception to this rule, because of the modest size of the convention center, the close proximity of the two major hotels, and help from the hotels in defraying a part of the extra costs. In every survey we have done, the participants have overwhelmingly voted for resort properties, so we do try to avoid large cities. There is another important reason for this: attrition penalties. If CPDD contracts for a certain number of rooms, and the room block is not filled because attendees can find better deals at other nearby properties, then we would be charged heavy penalties by the hotel. It is much easier to predict and fulfill our numbers in venues where there are limited alternate hotels.

We also try to select sites that are family-friendly so that attendees can make a vacation out of the trip if they so desire. On this point, some of you have questioned the decision to have our upcoming meeting in a gambling town like Reno. First, let us assure you that we selected a hotel that has its casino completely separated from the meeting space, so no one is forced to walk through the casino to attend our sessions. It is actually located in Sparks, Nevada, which is a few miles outside the main gambling strip in downtown Reno. The hotel has an adjacent outdoor mall with restaurants and stores. Another feature of this location is that it is only about 45 minutes from the gorgeous Lake Tahoe. It is a great starting point for a vacation. One of the biggest draws is the price; room rates will be the least expensive that they have been in years, which makes it more affordable for students, government employees, and others (e.g. NIDA grantees) on a budget. Food prices are also reasonable. To CPDD's benefit, Reno has a very client-friendly attrition policy, which helps the organization in times of unpredictable cutbacks and a faltering economy.

In general, a hotel contracts room rates based on the number of rooms blocked and the food & beverage estimated income. Because of our large numbers and the food functions we include in the contract, we have never had to pay meeting room rental in a hotel. It also helps that we look for top resorts in off- or shoulder-season, when they are hungrier for the business. Of course, this means that many of these are in places where the weather can get awfully hot in June (e.g., The Scottsdale Princess, a recurring favorite site of the membership). We try to schedule time off during the cooler part of the day whenever possible.
At the 2008 NIDA Mini-Convention, a satellite meeting of the Society for Neuroscience (SfN) Annual Meeting, outstanding scientists will present recent findings and discuss future directions in the neurobiology of drug abuse and addiction. The Mini-Convention includes: four symposia, the SfN Jacob Waletzky Memorial Lecture, and a poster session for early career investigators. The agenda for this year is:

- Welcome: Nora D. Volkow
- Epigenetics and Brain Function
  Speakers: Frances Champagne, Courtney Miller, Schahram Akbarian, and Eric Nestler
- Jacob P. Waletzky Memorial Lecture
- Multilevel Multimodal Imaging of Gene Expression, Cells, Neurons, and Circuitry
  Speakers: Karl Deisseroth, Mark Schnitzer, Mirjana Maletic-Savatic, and Christina Liu
- Early Career Investigators Poster Session and Lunch
- Willpower: What Really Governs Our Choices?
  Speakers: Patrick Haggard, Brian Knutson, Paul Glimcher, and Jonathan Cohen
- Cortical Development and Substance Abuse
  Speakers: Takao Hensch, Pradeep Bhide, Amelia Eisch, and Pasko Rakic

Conference registration is $42. For registration or additional information, please see the website: [https://www.sei2003.com/nida/frontiers2008/Index.htm](https://www.sei2003.com/nida/frontiers2008/Index.htm)
or contact Marisabel Mathison-Boozer by e-mail at [mmboozer@sei2003.com](mailto:mmboozer@sei2003.com).
thing about this complaint was that I heard it from scientists of all disciplines, suggesting that everyone thought that there should be more of their own type of research in the program. What this suggests is that we have a truly interdisciplinary organization. Because the College has been so successful in growing the scope and magnitude of the annual meeting and the membership over the last several years, the relative proportion of members in each of the represented disciplines inevitably has changed. I believe that our unique history as an interdisciplinary organization has been a key to its success and that we want to work actively to preserve this as we continue to grow.

Finally, I want to close this column by congratulating everyone who contributed to the organization of the 70th Annual Meeting of the College on Problems of Drug Dependence held in San Juan, especially Ellen Geller and the Program Committee members who work tirelessly to have the best program possible. I also want to thank all of those who participated in the meeting as presenters or attendees. The scientific program was outstanding and well attended with too many highlights to single out specific presentations (see the Recap on p. 16 and on the Web at: http://www.cpdd.vcu.edu/Pages/meetings/PastMeet.html. Planning is already underway for this year’s conference, and we look forward to an exciting time in a brand new venue for the CPDD meeting in Reno/Sparks, Nevada.

Meeting Site Selection continued from page 3

but it’s a concession that we feel is worth making in order to get a luxury hotel at a deep discount.

Once we have determined that the meeting space and sleeping rooms meet our needs, we plan a brief site-inspection to the property to ascertain its viability as a meeting venue, taking into account some of the destination factors mentioned above. If it looks like it will work, we enter into negotiations with the help of Sailair and our legal advisor, who is an expert in hotel contract law. Another factor in negotiating the price is signing multi-year contracts. When we find an acceptable property, we try to do 2 linked contracts, usually 4 years apart, with an "out" clause 30 days after the first meeting, in case of major problems that would preclude our returning to that site. Because of our size, it is not as easy as one might think to find places that will be a good fit, so it is important to lock in deals well in advance of the year of the meeting, which makes the multi-year contract attractive to CPDD as well as to the hotel.

How do we find the hotels? There are several sources of leads. One is Sailair Travel, our partner in meeting planning for over 20 years. Another is the National Affordable Meetings conference that we attend yearly to speak with hotel and convention bureau reps about potential meeting sites. Still another is you, the membership of CPDD. If you know of any properties that you think might suit our needs, please contact us in the Executive Office. We will be happy to check them out.

-- Contributed by Ellen Geller
Meeting Highlights – The 2008 Marian W. Fischman Award

This award in memory of Marian W. Fischman, a much admired leader in drug abuse research and an excellent scientist, was established in 2001 to recognize the contributions of an outstanding woman scientist in drug abuse research.

2008 Awardee:
Edythe D. London, Ph.D.

Edythe D. London received graduate training in pharmacology from the University of Maryland and postdoctoral training in neuropsycho-pharmacology at the Johns Hopkins University. In 1980, Dr. London joined NIDA’s Intramural Research Program, where she directed the Brain Imaging Center until moving to UCLA in 2001. Dr. London conducts translational research on addiction, and has published over 330 scientific papers and edited three books. Some of her contributions include the observation that nicotinic receptor distribution was related to the cerebral metabolic response to nicotine, helping to resolve controversy regarding whether nicotinic receptors in brain were coupled to function. She extended this finding to development of probes to image nicotinic receptors. Dr. London’s team also first described the neural circuitry linked to cocaine craving in humans, leading to other studies that revealed commonalities in the circuitry involved in craving for a variety of drugs and to demonstrations of striatal dopamine release in response to cocaine-related cues. Dr. London’s group has extended this work to genetic and hormonal influences on cue-reactivity related to obesity. Dr. London’s current research focuses on the prefrontal cortex. Starting with one of the first reports of a structural cortical deficit in drug abusers, she moved to address cortical deficits related to impaired inhibitory control in addiction. A better understanding of inhibitory control mechanisms may advance new therapeutic approaches.

Introduction by Jerome Jaffe, M.D.

It is with great pleasure that I take this opportunity to introduce my friend Dr. Edythe London, this year’s recipient of the Marian W. Fischman Lectureship Award. This award has been established to honor the memory of one of the leading researchers in our field, who died in 2001 at the peak of her scientific productivity.

Some of Dr. London’s major achievements have been summarized for you; but let me take a few minutes to provide a broader view. In 1982, soon after the Addiction Research Center relocated from Lexington, Kentucky to Baltimore, Don Jasinski recruited Eydie London from the NIH Institute on Aging to help expand neuroscience research at the new ARC.

By 1984, when I came to the ARC, she had already established working relationships with the nuclear medicine departments at Johns Hopkins and at the NIH Bethesda campus, and had begun the first PET scans ever to explore the effects of opiates on human brain activity. She initiated and sustained this human work while building a basic neuroscience laboratory to map the effects of abused drugs on brain function. To paraphrase one of her nominating letters signed by 17 colleagues, Eydie has demonstrated her capacity to conduct significant research concurrently at multiple levels of analysis – in vitro assays,

Continued on page 7
work with rodents, and with human volunteers; across a range of pharmacological classes – nicotine, opioids, sigma agonists, and cocaine; and utilizing a variety of scientific methods – molecular pharmacology, behavioral assessments in animals and humans, and particularly brain imaging.

Eydie’s capacity to organize and collaborate is noteworthy. By the early 1980s, Eydie’s laboratory attracted competent fellows from all over the world, and within a remarkably short time she established a brain imaging center that she opened to outside collaborators. It is a measure of her capacity to sustain friendships and collaborations that she continued to publish on aging through 1997 -- 15 years after leaving NIA’s gerontology lab.

It would be an understatement to say that Eydie has been exceptionally productive. She has authored or coauthored 256 peer-reviewed journal articles, edited 3 books, contributed 76 chapters and reviews, and submitted 487 abstracts (16 of these in the first 5 months of 2008). Let me mention a few of her findings that merit special attention.

One of Eydie’s early studies of nicotine at the ARC showed the distribution of metabolic effects of nicotine in rats, demonstrating that high affinity nicotine binding sites are coupled to function. Another study already underway when I assumed directorship of the ARC in 1984, led to her 1990 report on PET scanning to show morphine-induced metabolic changes in the human brain and linking those changes to effects on mood. This was followed shortly by the PET study showing that euphorogenic doses of cocaine reduced glucose metabolism. While the idea that external cues associated with drug use could elicit craving had first been mentioned by Wikler in 1948, Steve Grant, Eydie, and their coworkers were the first to use brain imaging to show that drug cues could change brain activity. Studying polysubstance abusers, Eydie’s group showed smaller volume in the prefrontal lobes, and may have been the first to call attention to a possible link between frontal lobe dysfunction and impulse control in drug dependence. Her group also showed connections between mood disturbances and metabolic abnormalities in methamphetamine abusers. Among her recent publications are those using one of the special nicotine receptor ligands that she helped to develop to show interactions of smoking with nicotinic receptors in the human brain.

Lastly, I would like to mention a recent study that has important implications for the way we think about opioid dependence. With Igor Galynker at Beth Israel Hospital, Eydie’s group studied brain metabolism and mood in former heroin addicts who had been abstinent for many months, comparing them to healthy controls and to former heroin addicts receiving methadone. While the abstinent addicts had deficits compared to the controls, those receiving methadone were much more like the normal subjects.

In addition to her scientific contributions, Eydie has been an outstanding citizen of the scientific community. She has served on multiple governing committees at every institution where she has worked. A few examples at UCLA include the IRB, the Faculty Mentoring and the Academic Advancement Committees. She has served on grant review committees for the National Science Foundation, the Medical Research Council of Canada, the Department of Energy, the VA Merit Program, NIDA and other NIH review committees. She has served on the editorial advisory boards of several prestigious neuroscience journals and currently serves on 4. She holds 4 patents, belongs to 11 professional societies, and

Continued on page 8
Marian W. Fischman Award continued from page 7

has received a number of awards. And she has served CPDD as a member of the Board of Directors and the Credentials and Program Committees. Since 1980, she has given 190 grand rounds, invited lectures and panel presentations. These have taken her to 83 cities in 35 states and 14 foreign countries.

Accomplishing all of this requires exceptional organizational skills and a phenomenal capacity for hard work. But especially significant, I think, is Eydie's courage. This courage was reflected in her willingness to leave the well-funded and productive laboratory that she established at the NIDA Intramural Program in Baltimore, the city where she had lived nearly all her life, and to start to build again from scratch in Los Angeles. I think this courage came with her DNA. Eydie is the daughter of a remarkable woman, now over 80 years old, who evaded the Nazi's final solution, survived the Holocaust, and left her country as a displaced person sustained only by hope and courage.

Eydie was born in Italy. English was not her first language. And when her parents immigrated to the United States, life was not comfortable. Later on, scholarships allowed Eydie to attend college and fellowships allowed her to complete graduate studies in pharmacology. She did most of her doctoral and postdoctoral work while having children and running a household. Over the years that I have known Eydie, I have never figured out how she manages to be as fully involved in the lives of her daughters (and now her 3 grandchildren) as she is, to fulfill obligations to many other family members, to maintain and sustain friendships, and yet to be so scientifically productive.

Bob Schuster, who was Marian Fischman's mentor at the University of Chicago and Bob Balster who was her colleague there wrote of Marian after her death that her “success in research depended in no small measure on her grace and personality. She was a kind and considerate person, exceptionally generous of her talents in furthering the field, a very hard worker, determined and enthusiastic.” These words could be used without modification to describe Eydie London, who, I think you will agree, fully merits inclusion among the distinguished scientists who have been honored as recipients of the Marian W. Fischman Lectureship Award.

Acceptance Remarks by Dr. London

Thank you, Dr. Jaffe, for the kind introduction and for being my friend and mentor for many years. I am very pleased to be given the great honor of joining the remarkable prior recipients of this award in paying tribute to Dr. Marian Fischman. Throughout her career, Dr. Fischman made many outstanding contributions to our field while reaching out to her colleagues in a uniquely warm and personal way.

I first saw an example of Dr. Fischman’s passionate and consistently strong commitment to furthering our understanding of addiction through laboratory research at a 1986 conference in Washington (Association for Medical Education and Research in Substance Abuse, AMERSA). I had just presented our first findings on the link between cerebral glucose metabolism and the euphorigenic response to cocaine, measured in the human research laboratory. When a member of the audience attacked the research, arguing that administration of psychoactive drugs in the laboratory was unethical, Dr. Fischman was very quick in citing scientific evidence that acute administration of cocaine under controlled laboratory conditions does not increase drug self-administration outside the laboratory. Her

Continued on page 15
Meeting Highlights – The 2008 Joseph Cochin Young Investigator Award

This award, in memory of a highly esteemed leader in drug abuse research and a former Chairman and Executive Secretary of CPDD, was established in 1986 to recognize research contributions in any facet of the field of drug abuse. It is given annually to an investigator who has not attained his/her 40th birthday by July 1 in the year of the award.

2008 Awardee: Hendrée Jones, Ph.D.

Hendrée E. Jones is Associate Professor of Behavioral Biology, Department of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine, and Research Director at the Johns Hopkins Center for Addiction and Pregnancy. After receiving her Ph.D. (1997) from Virginia Commonwealth University-Medical College of Virginia under the direction of Robert Balster, she completed a NIDA Postdoctoral Fellowship at the Behavioral Pharmacology Unit at Johns Hopkins University where she published with every senior BPRU investigator. Dr. Jones is currently Associate Professor of Behavioral Biology, Department of Psychiatry and Behavioral Sciences at the John Hopkins School of Medicine and Research Director at the Johns Hopkins Center for Addiction and Pregnancy.

Dr. Jones has received several notable awards for her early career contributions to drug abuse research and she is most deserving of the Cochin Young Investigator award. Her accomplishments are truly impressive encompassing laboratory-based behavioral pharmacology and drug abuse treatment research as well as the daunting challenge of bringing research into practice. In her very short 10 years in the field of addiction, she has an extensive list of publications including 57 peer-reviewed manuscripts, the majority of which she was either first author or senior author. She has initiated pioneering work in conducting randomized controlled clinical trials in pregnant opioid-dependent women and her work has already had a direct impact on the scientific, clinical and medical field. This impact translates into ongoing actions taken by federal, state and local agencies to improve the treatment of drug-dependent women.

As impressive as her scientific scholarship is her own personal integrity and her commitment to excellence for both patients and staff. Dr. Jones motivates all those around her to seek the highest levels of personal and professional achievement.

Continued on page 10
and in so doing ensures that her work truly makes a difference.

**Acceptance Remarks by Dr. Jones**

I accept the Joseph Cochin Young Investigator award with the utmost humility, especially knowing how many people that I greatly admire have previously won this award. I am deeply humbled by this important recognition of my work. I accept this award with deep gratitude toward the CPDD which is an inspiring organization in which I have grown up in academically. I want to thank the fellows, members and attendees of CPDD for the many gracious comments and warm words of congratulations that I received in recognition of my success. I greatly thank NIDA especially Drs. Frank Vocci and Joseph Frascella and those in their divisions for their continued support of my work.

While there is not time to adequately thank all of my mentors and colleagues who have made it possible for me to achieve this level of recognition, I do want to specifically thank Bob Balster for recognizing my initial potential and providing me with steadfast terrific mentorship.

I am forever indebted to the leaders and senior faculty of BPRU, George, Max, and Roland, for allowing me to develop my clinical science skills in an intellectual and nurturing, supportive environment.

I thank Ken Silverman for always being a supportive voice and Eric Strain for being an excellent role model for me in the importance of consistently following-up and following through.

A huge thank you goes to Ed Johnson who introduced me to the science of buprenorphine and gave me so many opportunities to excel as far and as fast as I could go.

I greatly thank Dace Svikis for her mentoring and many valuable “learning lessons” that she gave me.

I thank Loretta Finnegan for her mentorship in the world of NAS and Don Jasinski for being my consistent voice of reason when issues arise. To Karol Kaltenbach, I am indebted to you for teaching me so many things about the world and perinatal addiction science in a gracious and thoughtful way. I also thank the other MOTHER PIs Amelia Arria, Sarah Heil, Gabriele Fischer, Peter Martin, Susan Stine, Barry Lester/Mara Coyle, & Peter Selby for their support, belief in my vision and giving me the privilege to lead and be a part of such an amazing group. I thank Kevin O’Grady for his patience with me and lessons with humor. To Michelle Tuten and the faculty and staff at CAP, CAP Research and Cornerstone it is a privilege to work with you and learn from you and thank you for your tireless effort to successfully accomplish our work.

In thinking about my acceptance speech, I thought of the many people who I have watched receive this award before me and what words of wisdom I could share with future Cochin awardees. My advice boils down to the acronym CPDD.

**Collegiality:** Treat with kindness and respect those you work with and help them succeed; when you help others excel, you also excel

**Perseverance:** Keep at it and don’t give up when obstacles get in the way of your vision and tasks

**Determination:** Keep your eye on your goals and the big picture of what you need to accomplish

**Deliver:** Do what you say you are going to do, follow-up and follow-through on promised tasks

In closing I want to thank my family

*Continued on page 15*
Special CPDD Symposia

Presidential Symposium

Opioid Receptors from the Cutting Edge to the Clinic: Knockouts, Cross-talk and Behavior

Chair
Sharon L. Walsh, Ph.D.
President CPDD

Speakers
Christopher Evans, Ph.D. University of California Los Angeles
Mark Van Zastrow, M.D., Ph.D. University of California San Francisco
Wade Berrettini, M.D., Ph.D. University of Pennsylvania, Philadelphia
Rafael Maldonado, Ph.D. Universitat Pompeu Fabra, Barcelona

Discussant
Mary Jeanne Kreek, M.D. The Rockefeller University, New York

Memorial Symposium

Hot Topics in Cannabinoid Research: From Chemistry to the Clinic
In honor of Billy Martin, Ph.D.

Chair
Mary Abood, Ph.D. Temple University

Introductions
Louis S. Harris, Ph.D. & William L. Dewey, Ph.D.
Virginia Commonwealth University

Speakers
Jenny Wiley, Ph.D. Virginia Commonwealth University
Alex Makriyannis, Ph.D. Northeastern University
Vincenzo Di Marzo, Ph.D. Istituto di Chimica Biomolecolare
Consiglio Nazionale delle Ricerche, Pozzuoli, Italy
Charles O’Brien, M.D., Ph.D. University of Pennsylvania Center for Studies of Addiction

Discussants
Mary Abood, Ph.D.
Louis S. Harris, Ph.D.
William L. Dewey, Ph.D.
NIDA Director’s Report to CPDD Meeting: Progress, Challenges, and Opportunities in the Field of Addiction

Nora D. Volkow, M.D., Director, National Institute on Drug Abuse

As in years past, scientific advances continue to improve our understanding of drug addiction as a disease of the brain. The new knowledge is beginning to paint an increasingly detailed picture of the molecular, cellular and circuit level changes that can directly interfere with normal behavioral responses of an individual shifting a voluntary behavior to a reflexive and automated one. We are also starting to understand how genes, critical life stages and our physical and social environment, starting during fetal development and continuing through childhood, adolescence and adulthood, can modify the risk for experimenting with drugs and for becoming addicted. This paper summarizes activities related to the priorities and opportunities in drug abuse and addiction research within the current budget constraints of the National Institute on Drug Abuse.

Budgetary Landscape: Setting Priorities

By some accounts, alcohol, nicotine, and other substance abuse disorders (SUDs) may cost Americans upwards of half a trillion dollars a year in combined expenses and lost revenue. In spite of this exorbitant cost, and the challenging scope of the drug abuse and addiction problem in the nation, NIDA’s budget, which represents roughly 0.2% of this estimated cost, has been stagnant or declining in real dollars for the past three appropriation cycles. In this budgetary environment, NIDA continues to combine the focusing power of monetary constraint with the accumulated scientific knowledge to prioritize our goals and smartly allocate our limited resources on projects and programs with the potential to truly transform public health. As a consequence, NIDA has charted a rational path into the future that pays close attention to emerging opportunities (currently from the NIH Roadmap [RM]: epigenomic, science of behavior change and clinical and translational science awards [CTSA]) while concentrating research efforts into three established but critical priority areas: prevention, treatment and HIV/AIDS.

Emerging Scientific Opportunities from the NIH Roadmap

Epigenomics

As part of NIH RM 1.5 activities, NIDA, along with other Institutes, is leading the Initiative on Epigenomics. Epigenetics refers to various chromatin-modifying mechanisms that regulate gene activity without altering the DNA code (i.e., sequence) and can be maintained during cell division. Recent findings have shown that epigenetic marks are altered in common brain disorders including addiction. Thus, a better understanding of the factors that can trigger these changes, how they can be prevented, compensated for, or even reversed, could result in breakthrough technologies for the prevention and treatment of human addictions. NIDA either leads or cosponsors each of the following five RM research initiatives that have been recently launched:

- Reference Epigenome Mapping Centers (U01) (NIEHS)
- Epigenomics Data Analysis & Coordination Center (U01) (NIDA)
- Technology Development in Epigenetics (R01 & R21) (NIDA)
- Discovery of Novel Epigenetic Marks in Mammalian Cells (R01 & R21) (NIDDK)
- Epigenomics of Human Health and Disease (R01) (NIAAA)
The Science of Behavioral Change

On the behavioral side of the spectrum, it is becoming increasingly clear that recent advances in basic science and social neuroscience as well as continued progress in behavioral interventions offer tremendous opportunities that can be capitalized toward the development of next generation disease prevention and management approaches. Accordingly, NIDA has in the past and will continue to be committed to investing in basic research that focuses on the initiation, personalization, and maintenance of behavioral change.

CTSAs

This RM initiative was launched in 2005 to create an interoperable network where clinical trial can be done across diseases that can also serve to facilitate translation from basic discovery to the bedside and the community. Each Institute was assigned a PI from a node of the CTSA. The one from NIDA is Dr. Robert Rizza from the Mayo Clinic. NIDA staff (including the Director) visit the Node to discuss potential collaborations. The following topics were identified as unique opportunities for collaborations:

- Treatment of nicotine addiction.
- Treatment of chronic pain with opiate analgesics and the risk for addiction.
- Development of electronic medical records (EMR) that include information on substance abuse in a way that improves the diagnosis and treatment of the medical consequences of substance abuse disorders without jeopardizing a patient’s health coverage.

Established Priority Areas for NIDA

NIDA operates from a strategic multipronged platform that focuses on three critical areas:

- Prevention Research
- Treatment Intervention
- HIV/AIDS

The overriding goal of our prevention efforts is to prevent the onset of drug use and the escalation to addiction in those who have already initiated use, realizing that, by preventing drug abuse, we are also preventing the myriad adverse health, social, and economic consequences of addiction. NIDA’s prevention research, which emphasizes the value of prevention during childhood and adolescence, applies the lessons of a bottom-up approach that incorporates many disciplines, such as genetics, development, environment, and comorbidity. To incentivize transformative and innovative research on the subject of drugs and HIV/AIDS, NIDA launched the Avant Garde Award (http://drugabuse.gov/avgp.html). This year, three awards are expected to be given.

A better description of the mechanisms underlying abuse and addiction, at all levels, promotes the rational development of not only better prevention programs, but also of therapies (pharmacological, behavioral, and combined) that are solidly grounded on scientific evidence rather than “common sense” assumptions. For those interested in learning more about the long-term strategic planning that shapes the decision making process at our Institute, a draft of the current strategic plan is available for perusal at NIDA’s website:

http://www.drugabuse.gov/StrategicPlan/Index.html

Acknowledgment. The author would like to thank Dr. Ruben Baler for his help in the preparation of this paper.
In Memoriam

Everette L. May, Ph.D.

By Louis S. Harris, Ph.D.

Everette L. May was born in Timberville, VA on August 1, 1914. After graduating from public schools, he entered Bridgewater College receiving an A.B. in chemistry/mathematics in 1935. He went on to graduate school at the University of Virginia, receiving a Ph.D. in Organic Chemistry in 1939. It was there he first became involved with the field of drug abuse, specifically opioid analgesics, which were the topic of his doctoral thesis. After a short stint at the National Oil Products Company, where he worked on several projects, including vitamin B, he joined the National Institutes of Health, as Associate Chemist, late in 1941.

Due to the pressures of the war, he worked initially at the NIH on anti-malarial drugs. A number of effective drugs emerged from this project, one of which was used during the Vietnam War to treat resistant falciparum malaria. After WWII, he returned to the field of analgesics and began his extensive collaboration with Nathan B. Eddy in 1950, which lasted until Eddy’s death in 1973. Eddy was a pharmacologist who was responsible for the analgesic and dependence testing of the compounds that emerged from the synthetic program. He also had a strong relationship with the National Academy of Sciences Committee on Problems of Drug Dependence (CPDD) and introduced Dr. May to his long relationship with the organization. Dr. May first served on the board in 1957 as an alternate. He was first formally appointed in 1961, and in 1968 became a Consultant to manage the testing program. He served in that role until 1977, when Arthur Jacobson took over. The analgesic program at NIH and CPDD centered around the discovery of potent analgesics with no or less abuse potential than morphine, and later in medications for the treatment of opioid dependence. In this area, Dr. May made many important contributions. One of the first was pentazocine, which was marketed in the U.S. as an injectable and in the oral form in Europe and Australia. A second notable achievement was l-acetylmethadol (LAAM), which had some success as a replacement for methadone as a maintenance drug in the treatment of opioid addiction. His large structure-activity studies, especially the importance of stereospecificity, played an important role in the discovery of opioid receptors and the endogenous opioid system. More recently, he made important contributions to the chemistry of cannabinoid analgesics and to synthesis of nicotine analogs.

While at the NIH, he rose through the ranks to Senior Chemist (1953-1977), and then Scientist Director and Chief, Section on Medicinal Chemistry (1960-1977). He retired from the NIH in 1977 and joined the Department of Pharmacology and Toxicology of the Medical College of Virginia at Virginia Commonwealth University as Adjunct Professor, where he maintained an active role until shortly before his death. During his career, he was author or co-author on more than 200 research papers, books, monographs and review articles.

Everette also had a distinguished record of professional service. He spent six months at the United Nations Narcotics Laboratory in Vienna as Consultant on drafting the Convention on Psychotropic Substances, 1971. He served as Assistant Editor of the Journal of Medicinal Chemistry (1963-1967) and was on the Editorial Boards of Research Reviews, 1979-2008 and Medicinal Chemistry Research Reviews, 1992-2008. He also served as a

Continued on page 15
Everette May  continued from page 14

member of the WHO Expert Advisory Panel on Addiction Producing Drugs from 1959-1977. He served a number of terms on the Board of Directors of CPDD. In the community, he served as coach, manager and secretary of the Montgomery County Baseball Association and Deacon and Elder of the Bethesda Presbyterian Church.

In recognition of his scientific contributions, he was the recipient of numerous awards. These include the:

- ACS Hillebrand Award in Chemistry, 1968
- HEW Distinguished Service Medal, 1974
- American Pharmaceutical Association Research Achievement Award in Medicinal and Pharmaceutical Chemistry, 1976
- ACS Smissman Award in Medicinal Chemistry, 1979
- CPDD Nathan B. Eddy Memorial Award, 1981
- Honorary Membership Pharmaceutical Society of Japan, 1992
- ACS Alfred Burger Aware in Medicinal Chemistry, 1992

Everette was also an excellent mentor to a large number of postdoctoral fellows, both at the NIH and MCV/VCU. Many of these went on to distinguished careers on their own. Some examples include Kenner Rice, Arthur Jacobson and Mikio Takeda from Japan.

Finally, Everette should be recognized for his personal qualities. He was highly intelligent, hard-working, unassuming and very giving of himself in helping others. He was a true “gentleman.” We will all miss him.

Marian W. Fischman Award  continued from page 8

collaboration with Dr. Chris-Ellyn Johanson later culminated in a review, entitled “Ethical and practical issues involved in behavioral pharmacology research that administers drugs of abuse to human volunteers,” published in Behavioral Pharmacology in 1998, providing a needed scholarly evaluation and review of the concerns and practical issues. Dr. Fischman’s commitment to obtaining the objective data to support human laboratory studies of stimulant abuse and her willingness to ensure that these data were used in justifying our work has been critical to furthering discoveries needed to understand and ultimately provide treatment for stimulant addiction.

Dr. Fischman was a generous and remarkable colleague, mentor, and role model for addiction researchers. This was especially true for women who faced the challenge of making meaningful contributions to our field and also to our families and friends. Dr. Fischman did this with exceptional grace. For her example, warmth and friendship, I am and will be forever grateful.

2008 Joseph Cochin Award  continued from page 9

and most importantly my husband and children who make daily sacrifices for me to do what I love doing. Of all of my accomplishments, the two which I am most proud of are my children, Ashley and Davis. There is no greater joy than parenting these two wonderful human beings and I hope they will far surpass me in their future accomplishments.

Finally, I dedicate this award to my mom who sacrificed so much of herself to support me in so many ways and is not able to be here today because she is waging a hopefully successful battle with breast cancer.

Thank you again for this humbling and amazing award.
Submit Your Best Data to DAD

As I am sure you know, CPDD sponsors a multidisciplinary journal, Drug and Alcohol Dependence (DAD), which is among the leading addiction journals in the U.S. The journal includes papers on drugs, alcohol and tobacco and covers fields from molecular biology and chemistry to epidemiology and policy.

Please consider supporting the College journal by submitting manuscripts based on your presentations at the annual meeting, or on any other work you may have ready for publication.

There are several reasons why you should consider DAD for your submissions, including the following:

* DAD has the 2nd highest impact factor (3.222) among substance abuse journals.
* DAD will quickly process your submission. In 2007, the average time from first submission to receiving feedback from the editor was 5.5 weeks.
* DAD has a very favorable production time, with an average of 5.4 weeks from final acceptance until a fully citable online appearance. With 21 issues a year, there is no delay for papers to accrue to complete publications as occurs with journals with fewer annual issues.
* There is excellent worldwide access to the journal. All CPDD members have both online full text access and receive a print subscription to the journal. DAD is bundled with many other Elsevier journals so it is available online via Science Direct to scholars from around the world. You can check this for yourself by accessing DAD through your institution online library or such search services as PubMed and Scopus. In 2007, there were about 350,000 full text downloads of DAD articles via Science Direct, on average over 1500 per article.
* For those of you with NIH funding, DAD will automatically submit the final version of your paper to PubMed Central within the NIH guidelines.

For more information on the journal, go to [http://www.cpdd.vcu.edu/Pages/DADJournal.html](http://www.cpdd.vcu.edu/Pages/DADJournal.html)

-- Contributed by Richard De La Garza, Ph.D.

Meeting Recap

The 70th Annual Scientific Meeting of the College on Problems of Drug Dependence was held at the Caribe Hilton Hotel in San Juan, Puerto Rico, June 14-19, 2008. It was very well attended with 1382 registrants, almost the same number (1375) that came to the meeting the last time it was in Puerto Rico in 2004 and more than the number (1264) who traveled to Quebec City for last year’s meeting.

There were 366 members, 60 members-in-training, 711 non-members, and 157 students, the balance being social registrants, exhibitors, and press.

Attendees flocked to San Juan from 48 countries. After the US, the most highly represented countries were France (24), Canada and Spain (23), Australia (22), Sweden (10), Brazil, Germany, Israel, and Puerto Rico (8 each).

In all, we had 16 symposia (full or mini) and 22 oral presentation sessions. Topics covered a broad range of research in the field and can be viewed at cpdd.org along with the submitted abstracts. On Sunday afternoon, Tim Condon and David Shurtleff chaired a special forum on the NIH Roadmap and NIDA funding opportunities. In the evening, ASPET sponsored a mixer for the first time at CPDD, and 3 of the 11 workshops were held.

New for this year was a Journal Reviewer Luncheon workshop sponsored by Elsevier, publisher of Drug and Alcohol Dependence, our society’s journal, to train students and Members-in-Training in techniques of reviewing articles for publication.

-- Contributed by Ellen Geller
Addiction Science Fair Award

In 2008, for the first time, three high school students received awards for exemplary projects in Addiction Science presented at the Intel International Science and Engineering Fair. The awards are sponsored by NIDA and its education partner Scholastic, the global children's publishing, education and media company. The first place winner received a $2500 scholarship, the second place winner received $1500, and the third place winner received $1000.

An ambitious exploration of the basic mechanisms underlying addiction received top honors in the new Addiction Science category at the Intel International Science and Engineering Fair (ISEF), the world's largest science competition for high school students. The project, The Novel Role of the GluCl α; Ion Channel and Diazepam Binding Genes in Alcohol Addiction, was developed by Kapil Vishveshwar Ramachandran, a 16-year old senior from Westwood High School in Austin, Texas. He determined that when a specific protein (Diazepam binding inhibitor) is deleted in fruit flies, the flies may lose their tolerance to alcohol. Although the protein had been previously identified, these findings are a strong indication that it may play a role in addiction.

Winning second place distinction was Ethan Garrett Guinn, from Moore High School in Moore, Okla., for his project, Video Games: The Next Generation's Addiction. The 17-year-old senior chose the topic based on his own observation that video games are often used as babysitting tools, yet can lead to obsessive use.

The third place award was given to freshman Shelby Marie Raye from Manatee High School in Bradenton, Fla. Her project, What's In and What's Out: High Schoolers' Perceptions of Coolness, identified unique parameters that affect life trajectories, and may help scientists better understand peer pressure, a factor in initiation of substance abuse.

NIDA has developed a special section on its Web site to help science fair entrants understand the criteria for the awards, which includes other resources on addiction science. http://www.drugabuse.gov/sciencefair/

Pain and Addiction Webcast

A roundtable of expert discussion titled "Abuse, Addiction, and Pain Relief: Time for Change" was held in Bethesda, Maryland on February 8, 2008. CPDD was a cooperating organization for this roundtable discussion, along with the American Academy of Pain Management, the American Academy of Pain Medicine, the American Pain Foundation and the American Pain Society.

The roundtable was a CME/ACPE Initiative jointly sponsored by SynerMed Communications® and the Postgraduate Institute for Medicine, in collaboration with the National Institute on Drug Abuse (NIDA). The webcast is now available at http://www.medscape.com/viewprogram/9055 and is also linked from our Web site at http://cpdd.org/.

-- Contributed by Jonathan Kamien, Ph.D.