



NEWSLINE

A PUBLICATION OF THE COLLEGE ON PROBLEMS OF DRUG DEPENDENCE, INC.
Volume Twenty-Six, Number Two • October 2019

CPDD PRESIDENT'S COLUMN

Elise Weerts, PhD - President, CPDD

I hope you all enjoyed the 2019 CPDD meeting in San Antonio, Texas in June. Be sure to check out the meeting recap on the website. I reviewed it last week. It was fun to revisit the memories of the meeting and recall the excellent scientific program, the new people I met, and the synergy of the scientific discussions. As I now focus on writing my first Newsline article it is hard to believe we are already at the end of September. September is a time of change in the northeast, when the long, hot sunny days of summer slide into the cooler days and bright hues of the fall season.



*Elise Weerts, Ph.D.
President, CPDD*

This seems appropriate as I am contemplating all of the new developments and changes for CPDD. As announced at the June meeting, the Board of Directors voted to move CPDD operations to a professional association management company and approved the selection of the Parthenon Management Group (PMG).

I want express my gratitude and appreciation to Dr. Margaret (Meg) Haney for her outstanding leadership as the CPDD President this past year and for allowing me to shadow her activities. As President, Meg made significant strides for CPDD, including refining the code of conduct policy and appointing a committee focusing on implementation of the policy. Meg worked closely with CPDD Past-President Alan Budney and the Long-Range Planning Committee who were tasked with assessment and feasibility of different association management models for CPDD. Alan and the committee evaluated 18 applications received from the candidate management groups, conducted interviews of those with top applications, and provided recommendations. Specifically, a change in our management structure was necessary to achieve a fiscally responsible pathway for our growing organization, given the increases in meeting and operation expenses, limited NIH funds, and the future planned retirement of our outstanding and dedicated Director of the Executive Office, Ellen Geller. This was a huge task that Meg handled with competence, grace, and compassion. I look forward to continuing to work with Meg as Past-President and as the new Chair of the Long-Range Planning Committee (LRPC) as she continues making a positive impact on CPDD's future.

I am pleased to report on our transition progress to date. The PMG contract is in place and PMG staff began working with the CPDD office as of September 1st, 2019. I want to acknowledge and thank our Executive Officer Loretta Finnegan

CPDD PRESIDENT'S COLUMN *continued from page 1*

and our Director of the Executive Office Ellen Geller who are actively engaged in this process to ensure a smooth transition. CPDD continues to benefit from their dedication, knowledge, and leadership. Ellen and Loretta are meeting regularly with Sarah Timm, the PMG Executive Officer and Lindsay Snyder the Director of Client Operations for PMG to transition office and meeting operations, archive historical materials, and transfer CPDD general knowledge. I also want to thank the CPDD webmaster, Chris Wolf, and the CPDD office staff, Angela Predeoux, Neico Smith, and our bookkeeper Rachna Khanna for their continued work and support during this transition.

The transition of the CPDD website is full steam ahead! Beginning this month, you will see changes in the website which is undergoing a refresh and reorganization by PMG. The refreshed website will now feature the CPDD twitter feed on the home page. Two members of our Board of Directors, Bill Stoops and Erin Winstanley, who are active social media users are contributing to this effort. Follow and tag us on twitter (@CPDD19). The CPDD website will be launching a new system that integrates and streamlines processes for submission and review of meeting symposiums, abstracts, and workshops, applications for memberships and travel awards, as well as dues payments, and a research theme searchable membership directory. The symposium submissions using this system are now open! When you complete submissions this year, you will be asked to update your profile information. Last year, Meg Haney and the Committee on Underrepresented Populations (URPOP) chaired by Sherrece Fields began working to improve collection of demographic data on CPDD members and meeting attendees to help us gain a better understanding of representation within our organization. With the updated profile data collection, we hope to update demographic information for all our members. Once we have these data, we will work with the NIH and other scientific organizations to identify and formulate strategies to address shortcomings in representation. Please help us in this effort by updating your profile fully. We also now have a single email address for contacting CPDD management staff (Info@CPDD.org). You can now use this email for questions about the program submissions, the website or any other reason you need to contact CPDD. This greatly simplifies the process and will improve response time and follow up. Overall, I have been impressed by PMG's high level of professionalism, organization and capability during this transition. I am really looking forward to working with them this year!

Next, I want to welcome our new President-Elect, Stacey Sigmon. Stacey's first task is her role as Chair of the 2019 nomination committee. This committee is comprised of CPDD Regular members (Qiana Brown and Tom Hudzik) current members of Board of Directors (Wendy Lynch, Jermaine Jones, Geoff Mumford, Amy Janes), and Fellows (Jennifer Tidey Linda Porrino). Nominations for President-Elect and new Board members will begin in October. I encourage you to please participate in the nomination process to elect your representatives on the Board and future President of CPDD. You will receive a notification when the nominations site is open.

Sandra Comer, our Public Policy Officer is continuing CPDD efforts in public advocacy. Sandy keeps her finger on the pulse of government and connects with key staff in the offices of the U.S. Congress, U.S. House of Representatives, NIDA and Van Scoyoc Associates to monitor shifts in policy or NIH funding relevant to our membership. She also seeks out scientific expertise from members when our representatives are considering new policy changes or legislation related to drugs of abuse or NIH research funding. If you are signed up for the listserv you receive regular updates on news from the Hill and legislative action in process. There have been numerous legislative actions in the last year regulating hemp, cannabis and cannabidiol, and more recently on emergency scheduling of structural analogs of fentanyl. You can also learn more by visiting the CPDD website (<https://cpdd.org>).

Clearly, there are a lot of changes in process for CPDD. I welcome your feedback and suggestions. Finally, I want to say thank you again to the CPDD office, the Board of Directors, and the Committee Chairs and members who are all working hard to make sure CPDD continues to thrive. I am honored to serve as your president.

Elise Weerts, PhD; President, CPDD

2019 AWARD WINNERS

Stephen Holtzman Travel Award for Preclinical Investigators: Jacques D. Nguyen, PhD, University of California, San Diego (UCSD)

Introductory remarks by Michael Taffe, PhD, The Scripps Research Institute

It is my pleasure to introduce Dr. Jacques Nguyen for the Stephen G. Holtzman Travel award for 2019. Jacques has spent just over 4 years in my lab as a postdoctoral trainee and has proven himself to be an adept and energetic young scientist. After completing his undergraduate degree at the University of Notre Dame, Jacques sought graduate training at the University of North Texas Health Science Center with Dr. Michael Forster and Dr. Michael Gatch, who is well known to this audience. Upon joining my laboratory after completing his doctorate I told Jacques he could work on anything in the laboratory, by which I meant, of course, that he must work on everything. In his time in my laboratory Jacques has indeed been productive in many of our research areas. He has worked on our projects on cathinone stimulants (the “bath salts”) and he has been instrumental in developing our methods for delivering drugs to rats with vapor inhalation. Jacques has worked on anti-drug vaccines (including for oxycodone) and has focused more recently on the impact of oxycodone, work he will be presenting later this week.

Jacques has been scientifically productive, with 14 total authorship credits at this time. Of those he has generated 12 since joining my lab and 8 of these are first-author efforts. He has proven to be an innovative and creative force in establishing projects in collaboration with the laboratories of our late colleague, Larry Parsons, of Marisa Roberto and of Kim Janda for the vaccine work. Jacques has also already shown an admirable commitment to his scientific communities. He served in the ASPET Washington Fellows program to lobby Congress on the merits of scientific research and he worked with the ASPET behavioral pharmacology division as a postdoctoral representative. In addition, CPDD President Meg Haney requested that Jacques help with developing the new Code of Conduct which she mentioned earlier today.

In closing, I would be remiss if I did not mention mentorship in the context of this award. Dr. Holtzman’s passion for training young scientists has been discussed at past meetings for the prior awardees. Jacques has already shown a talent for mentoring as he has helped with the supervision of undergraduate interns in the lab as well as the less senior postdocs that have joined after his arrival. I think it is fair to say that Jacques has also become a sounding board and peer advisor to many of the postdocs in the department. It is therefore my honor to introduce Jacques Nguyen, a highly promising young scientist who is a credit to this College.

Award acceptance remarks by Jacques D. Nguyen, PhD, UCSD

I am grateful to the Holtzman family for their immense generosity and to the CPDD Awards Committee for selecting me for this tremendous honor. This award uniquely commemorates Dr. Holtzman’s significant research career and importantly continues his outstanding commitment to the mentorship of young scientists. I have had the privilege of working with wonderful mentors throughout my early career including my postdoctoral mentor, Dr. Michael Taffe, and my pre-doctoral mentors, Dr. Michael Forster and Dr. Michael Gatch. It has been with their support and guidance that I have learned so much and have been given the opportunities to pursue my research and career goals. I am also especially grateful to my family, to my friends and to my colleagues for their ongoing encouragement.



*Jacques D. Nguyen, PhD
UCSD*

2019 AWARD WINNERS *continued from page 3*

CPDD/NIDA Media Award: Elaine McMillion Sheldon

Introductory remarks by Meg Chisolm, MD, Johns Hopkins University

Each year, the CPDD/NIDA Media Award is given to an individual who has helped increase public awareness of substance use research and treatment. Nominations are solicited through members of the College, including its Media Committee. This year's Committee members put in an immense amount of work preparing and reviewing the nomination packages. This year, the Media Committee selected Elaine McMillion Sheldon as the recipient of the 2019 CPDD/NIDA Media Award in honor of her film "Heroin(e)," which demonstrates her clear commitment to increase public awareness about opioid use and its treatment.

A Netflix Original documentary, "Heroin(e)" examines the courage of three women – a fire chief, a judge and a street missionary – as they work on the frontlines of the opioid epidemic in Huntington, West Virginia. Huntington is a town with an overdose rate 10 times the national average but, within this distressed landscape, Ms. Sheldon shows us a different side of the fight against drugs — one of humanity and hope.

"Heroin(e)" won an Emmy Award and was nominated for an Academy Award, and the film's impact has been far-reaching. Hundreds of communities across the country have hosted screenings of the film, as did we at the 2019 CPDD annual meeting. It's a short film – only 38 minutes long – but it tells a powerful story. The CPDD screening was remarkably well-attended and following the film, Erin Winstanley (our new Media Committee Chair), who lives in Morgantown, West Virginia, herself and who nominated Ms. Sheldon, led a lively discussion.



Elaine McMillion Sheldon

Award acceptance remarks by Elaine McMillion Sheldon

I'm so honored to receive the 2019 CPDD/NIDA Media Award for my short documentary, "Heroin(e)." "Heroin(e)" was released in 2017 and has since shown in over 250 communities across the globe. It has reached international audiences through its status as an Academy Award nominee and a Netflix Original. But this award from CPDD and NIDA means a great deal to me given that it comes from the scientific community. I make documentaries not only to inform, but to help create greater empathy in our society. I am pleased that CPDD and NIDA see "Heroin(e)" as a piece of the puzzle for increasing the public understanding of substance use disorder.

<https://recoveryboysthefilm.com/resources/>

2019 AWARD WINNERS *continued from page 4*

Presentation of The Martin & Toby Adler Distinguished Service Award: Charles O’Keeffe, Virginia Commonwealth University

Introduction by Loretta Finnegan, MD, Executive Officer, CPDD

I am pleased to have the opportunity to introduce Mr. Charles O’Keeffe as the 2019 recipient of the Martin and Toby Adler Distinguished Service Award. Mr. O’Keeffe is a professor in the Department of Pharmacology and Toxicology and the Institute on Drug and Alcohol Dependence at Virginia Commonwealth University. He has dedicated his career to the service of several areas that have been extremely beneficial to the field of drug dependence. He utilized a number of innovative methods not previously exploited to make contributions to our field including beneficial toxicology services, education related to addiction, use of unique methods to provide an important pharmaceutical agent for the treatment of opioid dependence now available for many individuals dependent on opioids who were not being effectively treated with other medications, and finally, he has had extensive involvement in public policy contributory to our field.

Mr. O’Keeffe managed the largest clinical toxicology laboratory in the country providing urine toxicology services to the Department of Defense for troops returning home from Vietnam. He also developed the first abuse-resistant, child-resistant dosage form for dispensing methadone for take-home patients.

He served as Deputy Director for International Affairs in the White House Office of Drug Abuse Policy and as Special Assistant to the President for International Health where he worked with the United States Senate to support ratification of the United Nations Convention on Psychotropic Substances.

In the education area, he coordinated the University of Adelaide in Australia, King’s College in London and the Virginia Commonwealth University to establish the International Program on Addiction Studies which awards a Masters in Science degree from the combined universities to students from around the world. Additionally, he was instrumental in bringing the Hubert Humphrey Fellowship Program to the Virginia Commonwealth University.

Prior to joining VCU, he served as president and CEO of Reckitt Benckiser Pharmaceuticals as the company and NIDA proposed, under a Cooperative Research and Development Agreement, to develop buprenorphine products for the treatment of opioid dependence. He negotiated with Congress as it came to agreement on the Drug Addiction Treatment Act which, for the first time in nearly a century since the Harrison Narcotics Act of 1914, allowed physicians to treat Opioid Use Disorder patients in the privacy of a physician’s office. This treatment is now available in over 25 countries. More than 2 million patients have been admitted to buprenorphine treatment in the United States since its approval. These changes in regulatory and legislative areas were among the most significant changes in the field of drug dependence in this century and Mr. O’Keeffe’s creativity made it all happen.

As an individual who is accomplished in so many areas, CPDD was delighted to welcome him as a member of the Board of Directors where he was always involved in providing sound, excellent advice and service to our organization. He was one of the founders of the Friends of the National Institute on Drug Abuse in which CPDD is a member.

In summary, Mr. O’Keeffe’s commitment to service has exerted a major impact on the treatment of opioid dependence. His many meritorious contributions have made significant changes in order to improve the

2019 AWARD WINNERS *continued from page 5*

Introduction by Loretta Finnegan, MD, Executive Officer, CPDD (continued)

outcome of those individuals who are opioid dependent. Charles O’Keeffe engineered critical changes in the policy of the United States regulatory legislation and scheduling which has made a major impact on our capacity to respond to the current opioid epidemic. For these and many other contributions and, most notably, his service commitment to the field of drug dependence, it is my honor to present the Martin and Toby Adler 2019 Distinguished Service Award to Charles O’Keeffe.

Award acceptance remarks by Charles O’Keeffe, Virginia Commonwealth University

Thank you, Loretta, for those flattering words; which most of you who know me will recognize as highly inflated. I would like to say though, that the biggest honor of receiving this award is to receive it in the presence of two of the people who built CPDD and nurtured it into the organization it is today, and for whom it’s named - Marty and Toby Adler.

Those accomplishments that Loretta referred to weren’t mine; but rather, were a compilation of the talent, scientific acumen, and pure tenacity of many of you in this room today, and your mentors and predecessors. And many of them probably wouldn’t have come to pass without the collaboration made possible by meetings, discussions, arguments – and pre-clinical research and clinical trials initiated through dialogue at this meeting.

The giants in our field, from Nathan Eddy, Bill Martin, Mo Seevers, Everett May, John Lewis, Eddy Way, Lou Harris, Joe Brady, Bob Schuster, and scores more chemists, pharmacologists, clinicians, epidemiologists, psychologists, physiologists, government and industry scientists and administrators who all come here together under the broad umbrella of CPDD, have made and are making significant progress in addressing the scourge of addictive disease.

For that we can thank those giants who have gone before us and who have laid down the challenge for the next generation of giants in this room. That challenge is to collaborate—compete, but collaborate. Separately we can accomplish a task; collaboratively we can do magic. CPDD is the ideal tool for real collaboration and if we use it well both science and the public health will reap the benefits.



Charles O’Keeffe, VCU



*Stephen Kohut
Harvard Medical
School*

**Presentation of the Joseph Cochin Young Investigator Award:
Stephen Kohut, PhD, Harvard Medical School**

Award acceptance remarks by Stephen Kohut, PhD

I am truly honored to receive the 2019 Joseph Cochin Young Investigator Award from CPDD. This recognition is very special for me. I’ve attended the CPDD meeting consistently since graduate school, made many friends and established important collaborations here. I’d like to thank the Awards Committee and recognize the mentors that have had a tremendous impact on me and my career: Ellen Walker and Nancy Ator who opened my eyes to behavioral pharmacology and a career in research; my graduate advisor, Tony Riley and post-doc advisor, Jon Katz; Nancy Mello who brought me to McLean and gave me an opportunity to start my career as faculty; finally, Jack Bergman and Scott Lukas, who have been invaluable sources of counsel and support over the past several years.

2019 AWARD WINNERS *continued from page 6*

Presentation of the Mentorship Award: Linda Cottler, PhD, MPH, University of Florida

Introduction by Catherine Woodstock Striley, University of Florida

On behalf of Dr. Ty Ridenour and Dr. Wilson Compton, as well as the many mentees of Dr. Linda Cottler in this room and elsewhere, I am extremely happy to share this nomination with you.

Dr. Cottler, as many of you know, is a Dean's Professor of Epidemiology at the University of Florida, where she just stepped down after serving as the Founding Department Chair since 2011. She is also the Associate Dean for Research in the College of Public Health & Health Professions and Founding Director of Health Street, our community engagement program. Before coming to the University of Florida, Dr. Cottler spent over 30 years mentoring students, fellows and trainees at Washington University in St. Louis (WUSTL), where she was a Professor of Epidemiology in the Department of Psychiatry in the School of Medicine, faculty in the Program for Occupational Therapy at the School of Medicine and in Anthropology in the School of Arts and Sciences. At WUSTL, she served as Founding Director of the Epidemiology and Prevention Research Group (EPRG) which spearheaded training for the Master of Psychiatric Epidemiology degree, and where she was the Training Director for two NIH training grants and a Fogarty International Center ICOHRTA Training Program in Behavioral Disorders.

As you can see, Linda has mentored diverse students, including middle school, high school, undergraduate, graduate, postdoc, junior and senior faculty members. Dr. Cottler's work has had a huge impact nationally and internationally on prevention and intervention methods, culminating in international invited faculty positions, international training grants, internationally recognized diagnostic assessments, and four different degree programs in addition to NIH-funded training grants that prepare pre- and post-doctoral fellows for independent research careers. She has published around 300 manuscripts, most of which include trainees and students. Her mentees can be found across the globe. Since 1987 she has been a consultant to the World Health Organization, and she has conducted research internationally in Afghanistan, Australia, Haiti, India, Kenya, Taiwan, and Thailand. This work has resulted in teaching and mentoring faculty in many places, including Chulalongkorn University where she received an honorary doctorate in public health in 2016.

As Dr. Ridenour said in his letter of support to this nomination, "Her mentorship was crucial in my career development as it was for dozens of other nationally recognized scientists whose research investigates various facets of addiction...Her attention to detail and commitment to 'get it right' is imperative in this area of substance abuse research, and I am fortunate to have received this training." And from Dr. Compton's letter, "Dr. Cottler took what she learned firsthand about the importance of a mentor through her work with the remarkable Dr. Lee Nelkin Robins and has applied that knowledge throughout her career. I was one of these mentees and can testify first hand to her wonderful guidance and support. For me, this was perhaps most influential as I shifted from clinical training as a psychiatrist to a full-time research career. Dr. Cottler served as my mentor during these earliest stages and helped to guide me through early grant writing, including funded K awards and early R01 awards. We then transitioned into a partnership where we co-led a number of research projects at Washington University, an excellent reminder of Dr. Cottler's long-term commitment to her colleagues."

2019 AWARD WINNERS *continued from page 7*

*Continuation of the Mentorship Award: Linda Cottler, PhD, MPH, University of Florida
Introduction by Catherine Woodstock Striley, University of Florida*

Dr. Cottler exemplifies the very best in methods in her mentoring, epidemiological research, teaching, and service. She is an outstanding leader and an internationally known and recognized scientist. Taking my cue from my mentor, I'd like to repeat what she and Dr. Kathleen Bucholz said in a tribute to Dr. Robins. "Like so many others, we count ourselves among the many fortunate who benefitted from ...(her) wisdom, intelligence, counsel and grace." I am very pleased to present to you Dr. Linda Bauer Cottler to receive the CPDD Mentoring Award. Linda is a wonderful colleague, mother, grandmother, citizen, mentor and lifelong friend.

Award acceptance remarks by Linda Cottler, PhD, MPH, University of Florida

It was wonderful to receive the mentorship award from CPDD—an organization I have been attending since 1983, and an organization that has been my scientific home. I thank the awards committee for this honor, and Cathy Striley for the nice words and for nominating me, along with Wilson Compton and Ty Ridenour, all past mentees. I also wanted to thank my husband Matt and our daughters Emma, Laura and Sara for sharing me with my research family. Emma and Patrick drove from Dallas to share this moment as well and brought our three grandchildren who are my youngest mentees—Collins, Bauer and Miller. An award like this was only possible due to NIH support and I thank Nora and NIDA for continuously funding me since 1989 and especially our NIDA T32. George Koob was also there and I thanked him for the support he has given in the past.

I want to acknowledge my mentor Lee Robins, an internationally renowned psychiatric epidemiologist who taught me the importance of learning to do things myself so I could mentor others. She also taught me that if it didn't seem right, it probably wasn't. That was so important. I also acknowledged my mentoring mosaics—people of all ranks and levels who help one another make the best contribution to improving the public health. These are middle school and high school youth, as well as undergrads, NIDA summer scholars and pre docs, post docs and faculty.

Being a mentor is so satisfying but mentors are not perfect so....

Thank you all (who are reading this) for your patience and allowing me to have a small part in helping you do your best and to all of you who have mentored me.

This award means so much to me.

But you mean even more.



*Linda Cottler, PhD, MPH
University of Florida*

2019 AWARD WINNERS *continued from page 8*

Presentation of the Innovator Award: Bertha K. Madras, PhD, Harvard Medical School

Introduction by Loretta Finnegan, MD, Executive Officer, CPDD

It is indeed a pleasure for me to introduce Dr. Bertha Madras as the recipient of the 2019 Innovator Award. **The Innovator Award**, sponsored by Indivior, Inc., recognizes individuals who have developed innovative approaches in basic science, clinical research, or treatment and prevention science that reflect ground-breaking strides with the potential for significant impact in the field of drug dependence. The award will be presented this year, and next year the Awardee will deliver a lecture in the context of a symposium at the annual meeting.

Dr. Madras is a Professor of Psychobiology, at the Harvard Medical School and directs the Laboratory of Addiction Neurobiology at McLean Hospital. She has pioneered in most domains of the Innovator Award with significant impact for drug dependence. Her accomplishments include ground-breaking advances in basic neuroscience, translational research, and public policy. She is honored with this award because of her efforts in Translational Research.

Bertha was a true pioneer in discovering the remarkable properties of phenyltropane analogs of cocaine as exceptional selective and specific candidates for probing the dopamine transporter and dopamine neurons in post-mortem tissue and in living brain. The dopamine transporter is a key target of psychostimulants with therapeutic (methylphenidate, bupropion, modafinil) and abuse potential (cocaine, methamphetamine, mephedrone, other new psychoactive substances). She developed the most widely used probe, [3H] WIN 35,428 for monitoring these sites in vitro, and pioneered in the use of phenyltropanes for imaging these sites in living brain. With collaborators, she reported the first technetium-labeled probe to enter the brain and target these sites. Since her publications in 1989, 1990, over 1,500 manuscripts have used phenyltropane analogs to investigate this target in living brain for over 25 disease states, including addiction such as the following:

- (1) addiction or toxicity research on cocaine, methamphetamine, and MDMA;
- (2) alcohol hallucinosis and withdrawal;
- (3) medications development for methamphetamine and cocaine;
- (4) psychiatric disorders e.g. depression;
- (5) motor diseases e.g. DAT deficiency syndrome, and Parkinson's disease.

Her collaborative research group used this imaging agent to discover

- (1) that an extended release formulation of methylphenidate had markedly slower onset-offset times that were associated with reduced "high", "likeability" than immediate release methylphenidate;
- (2) that modafinil targets the dopamine transporter in living brain, kindling clinical trials as a cocaine medication;
- (3) that the non-coding region of the dopamine transporter gene is correlated with dopamine transporter expression in living brain, implying specific genotype modulation of dopamine signaling;

2019 AWARD WINNERS *continued from page 9*

*Continuation of the Innovator Award: Bertha K. Madras, PhD, Harvard Medical School
Introduction by Loretta Finnegan, MD, Executive Officer, CPDD*

(4) that potent transport inhibitors she co-invented that contain no amine nitrogen, fail to enter the brain, implying potential as transport inhibitors at peripheral sites, or as inhibitors of conventional psychostimulant accessibility in the brain.

She is recipient of 19 U.S. and 27 international patents with collaborators. The 2006 Better World Report cited her brain imaging invention as “one of 25 technology transfer (university to industry) innovations that changed the world”. Please join me in welcoming Dr. Bertha Madras, the 2019 recipient of the Innovator Award.

Award acceptance remarks by Bertha K. Madras, PhD, Harvard Medical School

I thank CPDD and its leadership for this exceptional honor.

Closeness, be it with family, friends or colleagues can result in a surfeit of familiarity and associated appraisals and criticisms. For this reason, there is no greater joy or gratitude than if a commendation is given by those closest to you, by peers who are intimately aware of your research.

For this reason, it’s an especial honor to be the recipient of this year’s Innovator Award from CPDD. I am deeply grateful to the organization, for decades of providing high quality meetings where we gather to share our research. It’s hard to imagine working in a field without the unifying force of CPDD and its power to reinforce and strengthen the quality of our field. It is also an auspicious time to express gratitude to the cherished collaborators and colleagues with whom I share this award. A scientific career can remain a childhood dream unless reinforced, informed and influenced by others. To list my many collaborators and influencers is impractical and fraught with the risk of a painful omission. I also pay homage to the wonderful collaborators struck down by illness or death. I mourn for them and long to recreate our spirited dialogs that catalyzed direction and discovery.

To my colleagues at CPDD, your research and insights are now valued more than ever before. Our mission is the brain, how drugs affect it, and how to reverse imprinted adaptations that can influence behavior, health, values, even the will to live. The scientific progress made by CPDD members continues to generate profound and blessed relief to those suffering substance use disorders.

Now closer to the topic at hand: in my second year at University, a research paper I wrote on phenylketonuria focused thereafter my professional interest in neuroscience. Many years were spent in a laboratory; my heat-insensitive fingers testify to the wounds of the bench, long before the era of occupational safety. Such little relevance, compared with the harshness and uncertainty we face, in manuscript and grant reviews, in faculty appointments and promotions. Yet we persist, we build incrementally, we survive this unsure and at times brutal process, because we relish research.

Thank you my colleagues and collaborators who helped me achieve the euphoria of discovery, a euphoria far more concrete, durable, realistic, gratifying and meaningful than the drug-induced kind.



*Bertha K. Madras,
Harvard Medical School*

2019 AWARD WINNERS *continued from page 10*

Nathan B. Eddy Award: Maxine Stitzer, PhD, Johns Hopkins University

Introduction by Eric Strain, MD, Johns Hopkins University

I want to begin my remarks by thanking Warren Bickel and Jim Sorensen, who served as co-nominators for this award. They wrote terrific letters of support, and I greatly appreciate their assistance. I'd like to also thank Andy Coop and the members of the CPDD Awards Committee. I realize that there are typically a number of outstanding persons nominated for this award each year, and I appreciate the difficulty that this decision can entail. Their work can be thankless at times, and I want to take a moment to publicly thank them for making such a good decision in selecting Maxine.

Okay, so let me turn to talking about Maxine.

Maxine completed her undergraduate degree at the University of California (Berkeley), and then obtained an M.S. and Ph.D. at the University of Michigan under the mentorship of James H. Woods (who received the Eddy Award 15 years ago). She spent a year as a Research Associate in the Department of Pharmacology at Michigan, followed by two years as a Research Associate at the Worcester Foundation for Experimental Biology in Massachusetts. Max then settled in Baltimore, where she joined George Bigelow and Roland Griffiths in the Department of Psychiatry at what was then Baltimore City Hospital (and is now Johns Hopkins Bayview Medical Center). She concurrently had an appointment in the Hopkins School of Medicine. She advanced through the ranks at Hopkins, and was promoted to Professor over 25 years ago.

Maxine's 40+ year scientific career has encompassed a variety of themes, and she demonstrates a characteristic that I have come to appreciate is often present in Eddy awardees – that their work is not focused upon a single issue over the years of their research, but rather tends to dive into an area for several years, study it in a rigorous and exhaustive manner through a set of studies and resulting papers, makes a substantial scientific contribution to our understanding of the topic, and then moves on to the next interest that comes to their attention.

While they remain interested in an earlier topic, and can continue to work in that area for years, they are rarely a scientist who has just one song to sing. This is certainly the case with Maxine, and while she has continued to study some topics for much of her career, she has often been able to switch gears and take on new areas. This characteristic of Maxine demonstrates the underlying nature of her quality as a true scientist, and her ability to be so productive in so many areas seems to me to be one of the compelling reasons for this award.

Max's career has followed at least five major themes:

- Contingency Management
- Methadone Treatment
- Nicotine Dependence
- Acute Physical Dependence
- The Clinical Trials Network



*Maxine Stitzer, PhD,
Johns Hopkins University*

2019 AWARD WINNERS *continued from page 11*

*Continuation of Nathan B. Eddy Award: Maxine Stitzer, PhD, Johns Hopkins University
Introduction by Eric Strain, MD, Johns Hopkins University*

While it is tempting to use my time to discuss each of these themes and highlight some of her seminal work in each area, I'm going to not follow that path for a few minutes. Instead, I want to note that Max has balanced her work in research with a life outside the halls of academia. That has included a love of hiking and trekking, which she has shared with her husband, Duncan.



Her ability to balance work and personal life has served as a role model to others, and she has been a past recipient of the College's Fischman Award, as well as numerous awards from other professional associations (including from AMERSA and AATOD). Her energy in the office seems to be equally matched with her energy as she and Duncan have trekked around the world, and this balance during her highly successful scientific career is a model that we all should seek to emulate as we strive to maintain a balance between our love for science and the importance of our relationships outside of the work setting.

Max's career at Hopkins has been intertwined with that of George Bigelow (a CPDD Past President, Treasurer, and recipient of the Mentoring Award), and Roland Griffiths (who also has received the Eddy Award). These three investigators launched the Behavioral Pharmacology Research Unit, or "BPRU," in the Department of Psychiatry at Johns Hopkins, over 40 years ago.



2019 AWARD WINNERS *continued from page 12*

*Continuation of Nathan B. Eddy Award: Maxine Stitzer, PhD, Johns Hopkins University
Introduction by Eric Strain, MD, Johns Hopkins University*

The BPRU has served as a center of clinical research and postdoctoral training under their leadership, and has produced over 130 postdocs as well as rigorous research in essentially all drug classes of abuse, creatively blending studies that have examined both the pharmacological as well as behavioral aspects of drug self-administration, abuse liability, and other psychological as well as physiologic effects. Max’s work at the BPRU has included mentoring, and this list of her mentees (with apologies if I have missed some), includes several Past Presidents and Cochran Awardees for the College. Max’s mentees have gone on to mentor others, producing generations of investigators who trace their scientific family tree back to Max.

- | | |
|---------------------|---------------------|
| Shauna Aquavita | Scott Leischow |
| Jay Azorosa | Hendree Jones |
| Warren Bickel | Laura Juliano |
| Janet Brigham | Kimberly Kirby |
| Mary Ann Chutuape | Mary E. McCaul |
| Gerald Cochran | Erin McClure |
| Christopher Correia | Cynthia Rand |
| Colin Cunningham | Elias Robles-Sotelo |
| Tom Eissenberg | Kori Schuh |
| Reginald Fant | Stacey Sigmon |
| Mark Greenwald | Ken Silverman |
| Janet Gross | Eric Strain |
| Alexis Hammond | Ryan Vandrey |
| Steve Heishman | Sharon Walsh |
| Jack Henningfield | Erin Winstanley |
| Stephen Higgins | Curtis Wright |
| Martin Iguchi | Jim Zacny |

While many of my comments on Max have focused upon her career at Hopkins and the BPRU, I don’t want to overlook another side of Max – that of the artist. Max has a love of dance, music (including singing), and the theater, and as she has moved in to retirement, these outlets have provided paths for her boundless energy and enthusiasm.



2019 AWARD WINNERS *continued from page 13*

*Continuation of Nathan B. Eddy Award: Maxine Stitzer, PhD, Johns Hopkins University
Award acceptance remarks by Maxine Stitzer, PhD, Johns Hopkins University*

My brilliant career: Tracking the evolution of human addiction research

Eric Strain has provided an amazing and entertaining introduction, and we could just leave the awards presentation at that. Nevertheless, I will take the opportunity to strike a serious note for a few minutes and comment on the work that has been accomplished under my direction during a 44-year career at the Behavioral Pharmacology Research Unit of Johns Hopkins University School of Medicine. It has been a fortuitous time in many ways as I look back with the sense that my career started when human addiction research was in its infancy—also known as the Stone Age— and has grown and flourished over the years to the present time when we talk about integration with modern technology in the Phone App Age.

In the talk, I will give a whirlwind tour covering four specific areas of research that were accomplished at the BPRU under my direction. The purpose is to give a flavor for the work that was accomplished and point out how that work both advanced knowledge and contributed to practice and policy changes.

These were the four areas:

1. **Pharmacology of opioid physical dependence** with emphasis on temporal and dosing parameters of dependence escalation. This is work that could be continued today to inform dependence development with modern opioid pain medications.
2. **Medication development for opioid use disorder** with emphasis on parametric research that identified methadone dosages needed for opioid blockade. This work contributed to practice changes supporting higher dose methadone maintenance.
3. **Nicotine and tobacco research** including work that helped to characterize the effects of low nicotine and de-nicotinized cigarettes. One study testing the “extinction hypothesis”, which predicts that smoking will no longer be supported if nicotine is removed from cigarettes, formed the background for subsequent large scale clinical trials and current science-informed policy debates about whether and how nicotine content of cigarettes should be regulated.
4. **Behavior therapy development with Contingency Management (CM)**. Starting in the early 80’s, George Bigelow and I initiated the development of this behaviorally based therapy. We began demonstrating its efficacy and trained a cadre of researchers who went on to innovate and continue research with abstinence-contingent reinforcement therapies. My work within the National Drug Abuse Treatment Clinical Trials Network also significantly advanced this area of research including conduct of the first large multi-site trial showing effectiveness. CM interventions are compatible with modern technology and future adoption may be facilitated in future by use of remote testing and phone app-based delivery methods.

2019 AWARD WINNERS *continued from page 14*

CPDD OFFICERS

ELISE WEERTS, PHD, PRESIDENT
 MARGARET HANEY, PHD, PAST-PRESIDENT
 STACEY SIGMON, PHD, PRESIDENT-ELECT
 JACK BERGMAN, PHD, MPH, TREASURER
 LORETTA FINNEGAN, MD, EXECUTIVE OFFICER
 ELLEN B. GELLER, MA, DIRECTOR, EXECUTIVE OFFICE

BOARD OF DIRECTORS

F. IVY CARROLL, PHD
 ZIVA COOPER, PHD
 DEBORAH S. HASIN, PHD
 AMY JANES, PHD
 JERMAINE JONES, PHD
 FRANCES R. LEVIN, MD
 WENDY LYNCH, PHD
 GEOFFREY MUMFORD, PHD
 BEATRIZ ROCHA, MD, PHD
 MARK SMITH, PHD
 WILLIAM STOOPS, PHD
 DACE SVIKIS, PHD
 ERIN WINSTANLEY, PHD

**PRISCILA DIB GONCALVES, PHD
 EDITOR**

CPDD PUBLICATIONS COMMITTEE

QIANA L. BROWN, PHD, MPH, LCSW- CHAIR
 ANAHITA BASSIR NIA, MD
 BETHEA (ANNIE) KLEYKAMP, PHD
 CRISTINA BARES, PHD
 JOÃO CASTALDELLI-MAIA, MD, PHD
 JUN-XU LI, PHD
 KATHRYN MCHUGH, PHD
 MARK K. GREENWALD, PHD
 PAUL T. HARRELL, PHD
 RYAN LACY, PHD

SEND MATERIALS FOR NEWSLINE TO:

PRISCILA DIB GONCALVES
 INSTITUTE & DEPARTMENT OF PSYCHIATRY, SCHOOL OF MEDICINE, UNIVERSITY OF SAO PAULO
 RUA DR. OVÍDIO PIRES DE CAMPOS 785
 SÃO PAULO, BRAZIL 05403-903
 EMAIL: PRISCILADIB@GMAIL.COM

Continuation of Nathan B. Eddy Award: Maxine Stitzer Award acceptance remarks by Maxine Stitzer, PhD, Johns Hopkins University

I have been very fortunate to work in human addiction research during a time of significant evolution and advancement from the Stone Age to the Phone App Age. I'm very grateful to the College for recognizing the contribution of my work within this larger picture and honored to receive this award. I thank friends and colleagues who supported the nomination and applauded the award. I also owe many thanks to my husband, Duncan who has supported me so lovingly during all the busy and productive years of My Brilliant Career.



Maxine Stitzer and George Bigelow as pioneers of Contingency Management

82ND ANNUAL MEETING

DATES: JUNE 20 – 24, 2020
LOCATION: THE DIPLOMAT BEACH RESORT, HOLLYWOOD, FLORIDA

DEADLINES

Symposia/Workshops/Forums

Submission:
 Tuesday, October 15, 2019

CPDD Abstract Submission:
 Monday, December 2, 2019

CPDD Travel Awards:
 Monday, December 9, 2019



“Diving DEAP into Adolescent Brain and Cognitive Development (ABCD) Study Data”

A Society for Neuroscience Annual Meeting Satellite

Date: Saturday Oct 19th, 2019. 6:30 – 9:30.
Location: Hyatt Regency McCormick Place
To Register: AdolescentBrain@mail.nih.gov

This NIDA sponsored workshop will provide an introduction to the use of the web-based Data Exploration and Analysis Portal (DEAP) for analysis of the Adolescent Brain and Cognitive Development (ABCD) study. ABCD is an NIH funded 10-year longitudinal study of nearly 12,000 children. There will be didactic presentations on ABCD study design and measures, brain imaging and other data processing pipelines, accessing ABCD data through the NIMH National Data Archive, statistical analysis using DEAP, vertex based brain imaging analysis, and tools for analyzing ABCD data through cloud computing. The remaining time will be devoted to discussion.

PRECLINICAL MEMBER HIGHLIGHTS

Dr. William Fantegrossi: Characterizing the Adverse Effects of Synthetic Cannabinoids Using a Mouse Model

By Mark Smith, Ph.D., Animals in Research Committee Chair

Synthetic cannabinoids are emerging drugs of abuse that are associated with multiple adverse effects. In contrast to phytochemical cannabinoids derived from the cannabis plant (e.g., THC), less is known about the mechanisms responsible for the effects of synthetic cannabinoids. Dr. William Fantegrossi used rodent models to examine the neuropharmacological mechanisms contributing to their adverse effects.

In a recent study (<http://jpet.aspetjournals.org/content/early/2018/11/21/jpet.118.251157>), Dr. Fantegrossi and his graduate student, Catheryn Wilson, examined the convulsant effects of two dissimilar synthetic cannabinoids in mice. They treated mice with the synthetic cannabinoid full agonists, JWH-018 and 5F-AB-PINACA, the phytochemical partial cannabinoid agonist, THC, and the non-cannabinoid convulsant, pentylenetetrazol (PTZ). The two synthetic cannabinoid agonists and PTZ produced convulsant activity in a dose-dependent manner, whereas THC did not. Repeated administration of THC and JWH-018 produced tolerance to JWH-018 and 5F-AB-PINACA, but cross-tolerance was not conferred to PTZ. Repeated administration of PTZ increased sensitivity to its effects, but did not alter the effects of the synthetic cannabinoids. Importantly, the convulsant effects of synthetic cannabinoids were blocked by THC and the cannabinoid (CB1) receptor antagonist, rimonabant, but not by the prototypical anticonvulsant, diazepam. These findings indicate that the convulsant effects of two dissimilar synthetic cannabinoids are both mediated by agonist activity at CB1 receptors.

The most clinically relevant finding of this study is that diazepam did not block the convulsant effects of either synthetic cannabinoid, even at a dose that blocked the convulsant effects of PTZ. The findings obtained by Dr. Fantegrossi and his colleagues suggest that benzodiazepines may not be an effective treatment for cannabinoid-induced convulsions, and suggest that acute administration of a CB1 antagonist might be a better therapeutic option.

Dr. Fantegrossi has been a member of CPDD since 2001. He has served on the Electronics Committee, the Drug Evaluation Committee (2000-2006), and the Program Committee (2012-2014). He currently serves on the Committee for Abuse Liability Testing.



William Fantegrossi, Ph.D.

Dr. Kathryn Cunningham: Investigating the Role of Serotonin in Relapse Vulnerability in Cocaine Use Disorder

By Dustin J Stairs, Ph.D., Animals in Research Committee Member

Cocaine use disorder has high rates of relapse; however, there are no FDA-approved medications to prevent cocaine relapse. Two factors that predict relapse are impulsivity and an individual's level of reactivity to cocaine-related cues. Understanding the mechanisms of how these factors influence cocaine relapse could lead to better treatment options.

Dr. Kathryn Cunningham has used various animal models of impulsivity and cue reactivity to examine their role in cocaine relapse. Through this research, Dr. Cunningham has shown that a common serotonergic pathway underlies the ability of both impulsivity and cue-reactivity to increase vulnerability to relapse.

Recently, Dr. Cunningham examined the role of the 5-HT_{2A} receptor in impulsivity and cocaine cue reactivity in rats. She tested the effects of the FDA-approved, 5-HT_{2A} receptor antagonist pimavanserin on the 1-choice serial reaction time task of impulsive action. Rats were then tested for cocaine cue reactivity by allowing rats to acquire cocaine self-administration followed by forced abstinence for either 1 or 30 days. Rats were then pretreated with pimavanserin prior to measuring drug-seeking responses.



Kathryn Cunningham, Ph.D.

Dr. Cunningham found that pimavanserin suppressed impulsivity, and that the baseline level of impulsivity predicted cocaine cue reactivity on day 30 of abstinence. She also found that baseline levels of impulsivity predicted the effectiveness of pimavanserin to decrease cocaine cue reactivity on day 30. These data are exciting in that they indicate that an existing FDA-approved drug may be a potential treatment for cocaine relapse. Importantly, this research conducted in a preclinical, animal model is an important step in the process of medications development for cocaine use disorder.

Dr. Cunningham has chaired the Publications and Nominating Committees, served on the Board of Directors, and was elected CPDD President. She was awarded the CPDD Mentorship Award (2012) and the Marian W. Fischman Memorial Award (2013).

DRUG AND ALCOHOL DEPENDENCE CORNER

Eric C. Strain, MD, Editor-in-Chief

Editor's choice articles

<https://www.journals.elsevier.com/drug-and-alcohol-dependence/editors-choice/editors-choice-2019>

Historical trends in the grade of onset and sequence of cigarette, alcohol, and marijuana use among adolescents from 1976-2016: implications for “Gateway” patterns in adolescence.

Katherine M. Keyes, Caroline Rutherford, Richard Miech

(Drug Alcohol Depend. 2019 Jan 1;194:51-58. doi: 10.1016/j.drugalcdep.2018.09.015)

Historically, alcohol and tobacco products precede use of marijuana and other drugs among U.S. adolescents. Yet rates of adolescent alcohol and tobacco initiation are declining; marijuana use is not. We demonstrated that the proportion of adolescents who begin with marijuana, rather than alcohol and tobacco, is increasing. Indeed, 12th grade adolescents who smoke cigarettes before marijuana fell to less than 50% in 2006, and have continued to fall. Further, marijuana use after first alcohol/tobacco use is increasing. These results indicate that the “gateway” sequence is malleable, and dependent on the drugs that are most prevalent. Marijuana is increasingly common as adolescents’ first drug in the sequence.

Urban-rural variation in the socioeconomic determinants of opioid overdose.

Veronica A. Pear, William R. Ponicki, Andrew Gaidus, Katherine M. Keyes, Silvia S. Martins, David S. Fink, Ariadne Rivera-Aguirrea, Paul J. Gruenewald, Magdalena Cerdá

(Drug Alcohol Depend. 2019 Feb 1;195:66-73. doi: 10.1016/j.drugalcdep.2018.11.024.)

In a study of zip codes in 17 states, for the period of 2002-2014, elevated rates of prescription opioid overdose were concentrated in economically disadvantaged areas characterized by poverty, limited educational attainment, and low median household income. These risk factors were consistent across urban and rural areas. Conversely, socioeconomic drivers of heroin overdose (HOD) varied by urbanicity. In urban areas, poverty, unemployment, and low household income were associated with increased rates of HOD, whereas only low education was associated with HOD in rural areas. Rural HOD rates may have alternative macro-level drivers and a one-size-fits-all approach to community-level HOD prevention may not be successful.