



PENN PSYCHIATRY PERSPECTIVE



Perelman School of Medicine at the University of Pennsylvania | Department of Psychiatry

Ideas, Suggestions, and News!

We welcome your ideas, suggestions, and news about your activities for stories or announcements in Penn Psychiatry Perspective, the eNewsletter of the University of Pennsylvania Department of Psychiatry. Our goal is to offer useful and interesting news to readers and highlight our many outstanding faculty, programs, and services. Please submit your recommendations to psychweb@mail.med.upenn.edu.

*Dwight L. Evans, MD
Ruth Meltzer Professor and Chair*

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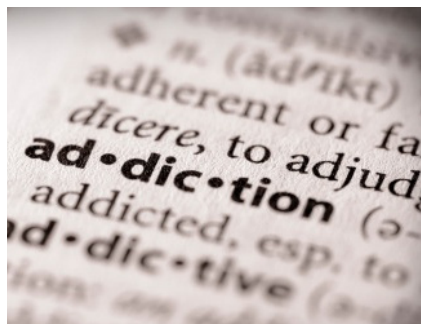
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Departmental Goings On

Sons Of Cocaine-Using Fathers May Resist Addiction To Drug



Mathieu Wimmer, PhD, a post-doctoral researcher in the laboratory of **R. Christopher Pierce, PhD**, was the lead author of a new study suggesting that the sons of fathers who use cocaine may be less likely to become addicted to the drug themselves. The abstract was presented at Neuroscience 2013, the Annual Meeting of the Society for Neuroscience, in November 2013.

The study, which utilized a rat model, is a follow-up to a paper published last year in which Dr. Pierce, Professor of Neuroscience in Psychiatry, and

colleagues found that cocaine abuse in a male rat rendered the next generation of animals resistant to the rewarding properties of the drug - those offspring were less likely to take cocaine. (See January 2013 issue of *Penn Psychiatry Perspective* for coverage of the earlier study.) In the current study, the authors focused on the physiology of neurons before and after taking cocaine in the offspring of cocaine-experienced fathers, and found that they were less sensitive to the drug and less likely to succumb to addictive behaviors. In short, not only are rat offspring of cocaine-abusing fathers less likely to take the drug on their own volition, they are less likely to become addicted to it if they are administered it.

In the Penn Medicine news release, lead author Dr. Wimmer summarized the implications of the Penn study and noted avenues for future exploration. "This adds to the growing body of evidence that cocaine abuse in a father rat can affect how his sons may respond to the drug and points to potential mechanisms that contribute to this phenomenon. Further research is needed to better understand how these behavioral changes are passed down from one animal generation to the next, and eventually if the same holds true for humans."

Besides Drs. Wimmer and Pierce, other Penn Psychiatry contributors to the study were **Fair Vassoler, PhD**, **Pavel Ortinski, PhD**, **Samantha L. White, PhD**, and **Heath D. Schmidt, PhD**. The study received broad media attention and was covered by Philly.com, Headline and Global News, Medical Daily, Nature World News, and Parent Herald.

View the Penn Medicine news release - http://www.ups.upenn.edu/news/News_Releases/2013/11/wimmer/

View "The Colbert Report" from November 20, 2013 for an off-beat perspective on the new study - <http://www.colbertnation.com/the-colbert-report-videos/430728/november-20-2013/tip-wag---hopped-up-pops--starbucks---american-consumers>

Departmental Goings On

Noise Is Hurting Our Health In More Ways Than We Realize



In a recently published review paper in *The Lancet*, **Mathias Basner, MD, PhD, Msc**, Assistant Professor of Sleep and Chronobiology in Psychiatry, and an international team of researchers analyzed the effects of noise on health. They found associations between noise and heart disease, cognitive performance, sleep problems, and hospital patient outcomes. "In our 24/7 society,

noise is pervasive and the availability of quiet places is decreasing," lead author Dr. Basner said in a Penn Medicine news release. "We need to better understand how this constant exposure to noise is impacting our overall health. From earbuds blasting music during subway commutes to the constant drone of traffic heard by those who live or work near congested highways to the beeping of monitors that makes up the soundtrack heard by hospital patients and staff, what we hear all day impacts many parts of our bodies."

The medical community knows that high noise levels can cause hearing loss, but its impact is more far-reaching. Its effect on sleep is just one just one instance where noise can have a deleterious influence on human health, Dr. Basner told the *Huffington Post* in an October 30, 2013 article. Noise negatively affects sleep quality similarly to sleep apnea, because noise can awaken people several times a night without them realizing it. "You're briefly waking up throughout the night, and it doesn't even have to be consciously," he said. In turn, disturbed sleep

has long-term health ramifications, Dr. Basner explained in a November 21, 2013 story in *Outside* magazine.

The authors of the review article also reported that long-term exposure to environmental noise affects the cardiovascular system, with connections to hypertension, ischemic heart diseases, and stroke. In addition, numerous studies point to associations between environmental noise exposure and children's cognition and to negative effects in hospitals for both patients and staff. Hoping that greater awareness about the effect of noise on health will spur public action, the authors of the review paper concluded that, "Efforts to reduce noise exposure will eventually be rewarded by lower amounts of annoyance, improved learning environments for children, improved sleep, lower incidence of cardiovascular disease, and, in the case of noise exposure in hospitals, improved patient outcomes and shorter hospital stays."

View the Penn Medicine News release at - http://www.uphs.upenn.edu/news/News_Releases/2013/10/basner/

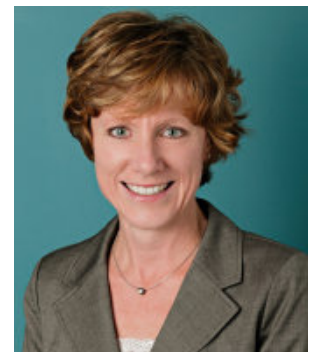
View the October 30, 2013 *Huffington Post* article at - http://www.huffingtonpost.com/2013/10/30/noise-health-effects-heart-disease-sleep-hearing-loss_n_4174544.html

View the November 21, 2013 *Outside* magazine article at - <http://www.outsideonline.com/fitness/wellness/Your-Bed-Is-a-Sanctuary.html>

The paper was also covered in a December 2, 2013 *Philadelphia Inquirer* article. View it at - http://articles.philly.com/2013-12-03/news/44662177_1_airport-noise-ear-buds-high-blood-pressure

Moms May Pass Effects of Stress to Babies

Tracy L. Bale, PhD was the lead author of two mouse studies indicating that pregnant women may transmit the damaging effects of stress to their unborn child, as reported in a Penn Medicine news release. The papers were presented at Neuroscience 2013, the Annual Meeting of the Society for Neuroscience. Stress is conveyed by way of the bacteria in the mother's vagina and through the placenta. As a newborn passes through the birth canal, the microbiome of a mother's vagina, an ecological community of microorganisms, reaches the offspring's gut. In the first study, Dr. Bale and her team showed that changes in the microbiome produced by stress in pregnant mice altered the microbe population in the newborn's gut, which correlated to changes in the developing brain. "For the first time, we've shown how stress can change the microbiome in the vagina and impact the microbiome of her offspring's gut, and that may, in part, ultimately affect their brain function and neurodevelopment," said Dr. Bale. "This mechanism could help us better understand how it may predispose individuals to neurodevelopmental disorders."



In the second study, also utilizing mice, Dr. Bale's team looked for predictive biomarkers of maternal stress and found that a specific protein in the placenta, OGT, may also have implications for brain development in offspring. The single enzyme is known as O-linked-N-acetylglucosamine transferase or "OGT," which is important in a wide variety of regulatory functions, including

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Moms May Pass Effects of Stress to Babies

development. The investigators manipulated placental OGT levels similar to the effect that maternal stress has. That way, they could ask if any of the effects of the mom's stress on brain development and function were related to this placental gene. They found that when the mouse pups became adults, they were smaller and more sensitive to stress, very similar to the offspring from the stressed moms. "Since lower levels were associated with stress, these results suggest that placental OGT may normally function to provide a protective role during pregnancy," said Dr. Bale. "These data also suggest that OGT may serve as a biomarker for a range of neurodevelopmental disorders in children, as we have previously shown similar regulation of this gene in human placental tissue."

Dr. Bale is Professor of Neuroscience in the Department of Psychiatry in the Perelman School of Medicine and in the Department of Animal Biology in Penn's School of Veterinary Medicine. She is also Co-Director of the Center for the Study of Sex and Gender in Behavioral Health in the Department of Psychiatry with **C. Neill Epperson, MD**.

View the Penn Medicine news release at - http://www.uphs.upenn.edu/news/News_Releases/2013/11/bale/

The two studies were also reported in a November 11, 2013 *United Press International* article - <http://www.upi.com/blog/2013/11/11/Moms-may-pass-effects-of-stress-to-babies-via-out-of-balance-vaginal-bacteria/1501384199764/>

In the News

Penn Department of Psychiatry faculty are highly acclaimed experts in their chosen fields, often contacted by local, national, and international media outlets for their knowledge about topics of immediate interest. In this section, we provide just a brief sample of the many recent interactions that our faculty have with the press. For a more complete listing, please visit Penn Psychiatry In the News - <http://www.med.upenn.edu/psych/news.html>.



How Heroin Abuse Has Become Epidemic

Charles P. O'Brien, MD, PhD was quoted in a November 8, 2013 *Philadelphia Inquirer* article exploring the reasons for the recent rise in heroin-related overdoses in Philadelphia, where overdoses tied to heroin jumped nearly 250 percent between 2010 and 2012. Some experts blame the increased use of prescription painkillers for this rapid rise. Abuse of the expensive narcotics leads to tolerance - and cravings for more. Heroin has become a cheap and more powerful alternative, and Philadelphia has the cheapest and purest heroin in the nation, making the transition from prescription opioids easier. Dr. O'Brien, the Kenneth E. Appel Professor of Psychiatry and Founder of the Center for Studies of Addiction in the Department of Psychiatry, explained why

users may turn to the less expensive heroin as a substitute for prescription painkillers. "They act on the same receptors," he said. "It's just that [opioids] are synthetic, and heroin comes from the opium poppy."

View the November 8, 2013 *Philadelphia Inquirer* article at - http://articles.philly.com/2013-11-08/news/43779531_1_heroin-abuse-prescription-painkillers-vicodin



Drinking After 40: Why Hangovers Hit Harder

David W. Oslin, MD, Professor of Psychiatry and Director of Psychiatric Services at the Philadelphia VA Medical Center, was quoted in a November 18, 2013 *Wall Street Journal* article on alcohol and the aging body. Drinking hits people harder in their 40s and 50s than it did during their 20s and 30s because of changes in body composition, brain sensitivity, liver functioning, and mixing with prescription drugs, the *WSJ* reported. "All of the effects of alcohol are sort of amplified with age," said Dr. Oslin. "Withdrawal is a little bit more complicated. Hangovers are a little bit more complicated." He added that taking alcohol with some pain medications and anti-anxiety drugs can make one "more prone to sedation, more prone to cardiovascular risk and more prone to

overdose."

View the November 18, 2013 *Wall Street Journal* article at - <http://online.wsj.com/news/articles/SB10001424052702304439804579205913000870266>

News and Announcements

Leadership Appointments



Dr. Dubé to Help Medical School's Diversity and Inclusion Efforts

Benoit Dubé, MD was appointed to the new position of Assistant Dean for Diversity and Inclusion in the Perelman School of Medicine. In this role, he will help coordinate and promote institutional diversity and inclusion programs and initiatives and contribute to the implementation of the medical school's recently established Action Plan for Diversity and Inclusion. Dr. Dubé also serves on the newly created medical school Faculty Council on Diversity and Inclusion in the Academic Programs Office.

Awards and Honors

Penn Honors

Dr. Dubé Selected as Alpha Omega Alpha Faculty Inductee

Benoit Dubé, MD was selected by the graduating class inductees as a 2012/2013 Alpha Omega Alpha Faculty Inductee. As noted by the honor medical society itself, "Election to Alpha Omega Alpha is an honor signifying a lasting commitment to scholarship, leadership, professionalism, and service. A lifelong honor, membership in the society confers recognition for a physician's dedication to the profession and art of healing."

Regional, National, and International Honors

Dr. Berrettini Honored by Local NAMI Chapter

Wade H. Berrettini, MD, PhD, Professor of Psychiatry and Director of the Center for Neurobiology and Behavior in the Department of Psychiatry, received the 2nd Annual Benefit for the Brain Scientific Research Award from the Montgomery County, Pennsylvania chapter of the National Alliance for the Mentally Ill (NAMI) in November 2013 in Philadelphia. Dr. Berrettini was recognized for his work on bipolar disorder.

Dr. Pierce Receives Research Award

R. Christopher Pierce, PhD, Professor of Neuroscience in Psychiatry, received the Daniel H. Efron Research Award from the American College of Neuropsychopharmacology (ACNP) in December 2013 in Hollywood, Florida. The award recognizes "outstanding basic research contributions to neuropsychopharmacology." Recipients must be fifty years of age or younger as of the end of the year in which the award is given.

Dr. Hayes Receives Award from Penn State

Matthew R. Hayes, PhD received the 2012 Emerging Professional Graduate Degree Award from the College of Health and Human Development Alumni Society at The Pennsylvania State University in November 2012 in State College, Pennsylvania. Dr. Hayes, Assistant Professor of Nutritional Neuroscience in Psychiatry, was honored for demonstrating professional excellence and/or exemplary voluntary community involvement in a health and human development field. His work and teaching efforts focus on investigating the neural, intracellular, and behavioral correlates of energy balance regulation and motivated behaviors.

Dr. Mietlicki-Baase Receives Award from The Obesity Society

Elizabeth Mietlicki-Baase, PhD, a postdoctoral fellow in the laboratory of Matthew R. Hayes, PhD, received the Ethan Sims Young Investigator Award from The Obesity Society. This award is given to one trainee per year for the best abstract and oral presentation of the meeting. The award is recognized in the obesity field as one of the most prestigious young investigator awards possible. Of note, Dr. Hayes is the only individual to have ever received the Ethan Sims award and been mentor to a trainee who has also received the award. Dr. Mietlicki-Baase received the award at the 31st Annual Scientific Meeting of The Obesity Society in November 2013 in Atlanta, Georgia.

News and Announcements

Clinical Recognition



Three Psychiatry Faculty Selected for Penn Medicine's Academy of Master Clinicians

Penn Medicine established The Academy of Master Clinicians this year to recognize those clinicians who exemplify the highest standards of clinical excellence, humanism, and professionalism. Election to the Academy is the highest clinical honor to be bestowed on a Penn physician. From sixty-four (64) excellent clinicians submitted as candidates, the Selection Committee chose twenty-two (22) physicians as inaugural members of the Academy from across all of Penn Medicine. The Department of Psychiatry is extremely well-represented in this initial group by the three (3) faculty members who were selected - **E. Cabrina Campbell, MD, Jody Foster, MD, and Anthony L. Rostain, MD, MA.**

During their 5-year term, the Master Clinicians will support the missions of Penn Medicine as described in the description of the program:

"Members of The Academy of Master Clinicians will serve as ambassadors for Penn Medicine. They will create an organized forum to provide feedback to leadership on strategies to improve the culture of clinical excellence in general and to promote the ideal patient experience in particular. They will be expected to be available as a mentor and consultant and to lead or participate in professional development/training programs for faculty, residents, trainees, students or staff. Areas of focus will include the art of medicine, communication skills, new faculty orientation/training, direct observation of clinical skills, and other topics of interest."

The Department is very proud of the three faculty members chosen for The Academy of Master Clinicians, and recognizes that they splendidly exemplify the high quality of faculty clinicians in the Department who provide superb care to all of our patients.

Announcements

Group Coaching Program for Adults with ADHD

The University of Pennsylvania's Adult ADHD Research and Treatment Program is offering a group coaching program for adults with ADHD, Improve Executive Functions with Mindful Self-Management. In this 12-week small-group program, participants will learn essential organizational, time-management, and planning skills, while exploring self-care, mindfulness, and yoga practices that help manage stress and improve attention and focus. For more information, visit www.med.upenn.edu/add/adhd_group.html.

Hall Mercer Child and Parent Center Winter Program

The Hall Mercer Child and Parent Center Winter Program schedule and information are now available on the website. Please visit <http://www.med.upenn.edu/hallmercer/program.shtml> to learn more.

Penn Medicine Neuroscience Center FY14 Pilot Grant Program Call for Applications

The Penn Medicine Neuroscience Center (PMNC) invites proposals for the support of pilot research projects in the broad category of the neurosciences. The PMNC would like to highlight two specific areas, neural circuits, particularly circuits underlying behavior, and neural repair. However all innovative ideas are encouraged and welcome. For detailed information, please visit <http://www.uphs.upenn.edu/neuroscience-center/about/grants.html>.

News and Announcements

Upcoming Events

Department of Psychiatry Grand Rounds

Department of Psychiatry Grand Rounds are held from 12:00 noon to 1:00 pm on the designated dates in the locations indicated. The next lectures are listed below. For more information about Grand Rounds and the 2013-14 schedule, please visit - <http://www.med.upenn.edu/psych/rounds.html>

December 19, 2013

"Evidence-Based Treatment of Obsessive-Compulsive Disorder Across the Lifespan"

Speaker: Michael H. Bloch MD, MS, Assistant Professor, Yale Child Study Center; Assistant Director, Yale OCD Research Clinic; Yale University

Location: BRB II/III Auditorium

January 23, 2014

"The Future of Psychiatry Residency Education: Milestones and Lifelong Learning"

Speaker: Richard F. Summers, MD, Clinical Professor of Psychiatry; Co-Director of Residency Training, Department of Psychiatry, University of Pennsylvania Perelman School of Medicine

Location: BRB II/III Auditorium

February 6, 2014

"Evidence-Based Treatment of Obsessive-Compulsive Disorder Across the Lifespan"

Speaker: Thomas R. Insel, MD, Director, National Institute of Mental Health

Location: BRB II/III Auditorium

*Happy Holidays and Best Wishes for a
Joyous New Year from Penn Psychiatry!*