

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

In this Issue

Departmental Goings On....1-3

News and Announcements.3-4

Awards and Honors.....5

Upcoming Events.....5

Departmental Goings On

Chronic Insomnia Sufferers May Find Relief with Half of Standard Sleeping Pill Dosing Regimen



Michael Perlis, PhD was the lead author on a new study presenting evidence that the roughly nine million Americans who rely on prescription sleeping pills to treat chronic insomnia may be able to get relief from as little as half of the drugs, and may even be helped by taking placebos in the treatment plan. The study's findings starkly contrast with the standard prescribing practices for chronic insomnia treatment. The study was published online on July 7, 2015 in *Sleep Medicine*.

"The full dose may or may not be required to get the initial effect," said Dr. Perlis in an August 3, 2015 Penn Medicine news release, "but certainly maintaining the effect can be done with less medication." The findings, which advocate for a dosing strategy of smaller and fewer doses of sleep drugs and use of placebos, would decrease the amount of medication needed to maintain medication effects over time.

The new approach allows individuals to maximize their clinical gains with respect to falling and staying asleep, while reducing side effects and cutting prescription drug costs. "The clinical effects of sleeping pills cannot be relied on to last forever, and long-term use increases risk of psychological dependence and side effects including daytime drowsiness, dizziness, and lethargy," said Dr. Perlis. "Our research found that changing the industry standard for maintenance therapy can maintain treatment responses and lower the incidence of side effects."

The study treated 74 adults experiencing chronic insomnia with 10 mg of the sleeping pill zolpidem (Ambien) for four weeks. Those responding to the treatment were randomized to one of four groups for 12 weeks - nightly dosing with 10mg of zolpidem; intermittent dosing (10mg of zolpidem, 3-5 days per week); "partial reinforcement" (10mg on 50 percent of nights and 0mg dose [placebo] on 50 percent of nights); and nightly dosing with 5mg of zolpidem. "When it comes to day-to-day quality of therapeutic outcomes, the strategy we use most frequently, the intermittent dosing strategy, performed worst," Dr. Perlis said. "Our findings also go against the standard practice of 'start low and go slow,' in favor of a 'start high and go low' dosing strategy in which a patient starts with 10 mg nightly and then when the desired result is reached, switches to either a lower nightly dose or intermittent dosing with placebos on non-medication nights."

Emphasizing the significance of the study, Dr. Perlis added, "What is particularly novel about the present study is the use of placebos on non-medication nights and that such a practice appears to extend a level of therapeutic benefit that is not seen with intermittent dosing. This effect is thought to occur owing not only to the enhancement of

Departmental Goings On

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Continued from page 1

patient expectancy but to the conditioning of medication effects, i.e., the medication induced effects may be elicited, with conditioning, by the medication capsule itself and that this can be sustained over time with occasional use of full dose medication (partial reinforcement)."

The study was widely covered in the print and electronic media, including the *Philadelphia Inquirer*, *Gazette Review*, *HealthDay* (via Doctors Lounge online), *Digital Journal*, *Newsmax Health*, *Russia Today*, and WHYY (Philadelphia) Radio.

Dr. Perlis is Associate Professor of Psychology in Psychiatry and Director of the Penn Behavioral Sleep Medicine Program in the Department of Psychiatry. The research team also included Penn Psychiatry co-authors **Michael A. Grandner, PhD**, **Erin Bremer, Julia Whinnery, Holly Barilla, MA**, **Priscilla Andalia, Philip Gehrman, PhD**, and **Michael E. Thase, MD**. Other co-authors from Penn included Knashawn H. Morales, ScD and Jarcy Zee. The work builds on earlier work by late researchers Richard Bootzin from the University of Arizona and Robert Ader from the University of Rochester.

View the August 3, 2015 Penn Medicine news release at - http://www.uphs.upenn.edu/news/News_Releases/2015/08/perlis/

Recently Approved Antipsychotic Drug Provides New Second-Line Treatment Options for Patients with Major Depressive Disorder



Michael E. Thase, MD was the lead author of a pair of studies providing evidence that brexpiprazole, an antipsychotic drug approved this past summer by the U.S. Food and Drug Administration, is an effective and well-tolerated addition to conventional first-line antidepressants for the treatment of major depressive disorder (MDD). The findings were published in two studies this past August in the *Journal of Clinical Psychiatry*.

"Although several other adjunctive therapies are FDA-approved for this indication, the side effects that come with these medications put them off-limits for many patients," Dr. Thase said in an August 26, 2015 Penn Medicine news release. "Since MDD is one of the world's great public health problems, it is gratifying to have new treatment options for patients who are not helped by current first- and second-line strategies."

Both studies, Phase 3 multicenter trials, enrolled patients who had a history of an inadequate response to at least one and as many as three standard antidepressants. The authors defined an inadequate response as less than a 50 percent reduction in symptoms. The first study enrolled a total of 378 patients, the second a total of 677 patients.

Importantly, researchers found the rate of one particular side effect, akathisia - agitation, distress, and restlessness - that can be a side effect of some antipsychotic drugs, was low in both studies. Rates of weight gain and drowsiness with brexpiprazole were similar to those observed in studies of aripiprazole, one of the most commonly used medications for adjunctive therapy in MDD. This suggests that the risk of akathisia was reduced without a compensatory increase in other side effects.

As a result of these studies, brexpiprazole was approved by the FDA on July 10, 2015 for the treatment of adults with schizophrenia and as an add-on treatment to an antidepressant medication to treat adults with MDD. In the news release, Dr. Thase noted, "Further studies will home in on the long-term tolerability of brexpiprazole so that we can further develop proper dosing guidelines."

Dr. Thase is Professor of Psychiatry and Director of the Mood and Anxiety Disorders Treatment and Research Program in the Department of Psychiatry at Penn. (These studies were funded by Otsuka Pharmaceutical Development and Commercialization, Inc., makers of brexpiprazole. Dr. Thase has served as a scientific advisor and consultant to Otsuka.)

View the August 26, 2015 Penn Medicine news release at - http://www.uphs.upenn.edu/news/News_Releases/2015/08/thase/

Departmental Goings On

Continuing an Annual Event - Penn Psychiatry Again Participates in AFSP's "Out of the Darkness" Community Walk

On October 4, 2015, enthusiastic volunteers representing Penn's Department of Psychiatry and Penn Behavioral Health again joined over 4400 participants to support a very worthy cause – suicide prevention. They all traveled to the Philadelphia Art Museum to participate in the Philadelphia "Out of the Darkness" Community Walk and related events sponsored by the American Foundation for Suicide Prevention (AFSP). The money pledged for the Walk will fund AFSP's nationwide research and education programs to prevent suicide and save lives, increase national awareness about depression and suicide, and provide support for survivors of suicide loss. The Penn Psychiatry volunteers helped the cause in multiple ways – by walking the course, staffing the Penn Medicine table, and collecting donations from those who attended the day's program. The Department thanks everyone from the Penn Psychiatry community who contributed their personal time and effort on a beautiful Sunday morning to help the AFSP preserve the lives of those in need.

News and Announcements

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 - <http://www.med.upenn.edu/psych/news.html>.)

Could Changing the Brain Help Smokers Quit?



Caryn Lerman, PhD was featured in a September 14, 2015 *Philadelphia Inquirer* article highlighting her research on how the brain's cognitive control system can be enhanced to improve self-control over behaviors that contribute to cancer risk. As part of a \$6.5 million grant she received for winning the very prestigious National Cancer Institute (NCI) Outstanding Investigator Award, she is testing whether cognitive activities aimed at strengthening brain functioning or treating the brain with a low level of electricity can make it easier for people to withstand smoking and eating cravings. Dr. Lerman's research will focus on smoking and obesity, which account for more than 45 percent of preventable cancer deaths. Her recent work has looked at the role of the dorsolateral prefrontal cortex, a region of the brain that is key to planning and self-control. "There is some evidence that

if you stimulate some of the cortical circuits [with transcranial direct current brain stimulation (tDCS)], you can improve cognitive performance and possibly influence decision-making in positive ways, but this is a very nascent field right now," Dr. Lerman said. To test this hypothesis, Dr. Lerman's research team will be recruiting smokers who want to quit next month and obese participants early next year.

Dr. Lerman is the Mary W. Calkins Professor in Penn's Department of Psychiatry and Annenberg School for Communication, Deputy Director of Penn's Abramson Cancer Center, and Co-Director of the Penn Medicine Neuroscience Center.

View the September 14, 2015 *Philadelphia Inquirer* article at – http://www.philly.com/philly/news/nation_world/20150914_Could_changing_the_brain_help_smokers_quit_.html

Why Eating Late at Night May be Particularly Bad for You and Your Diet



Kelly C. Allison, PhD was interviewed in an August 24, 2015 *Washington Post* article about efforts by scientists to understand why people indulge after dark and to determine whether those nighttime calories wreak more havoc than ones consumed earlier in the day, by driving up the risk of weight gain and chronic diseases such as diabetes. "The studies suggest that eating out of our normal rhythm, like late at night, may prompt weight gain" and higher levels of blood sugar, which can raise the risk of chronic disease, Dr. Allison told the *Washington Post*. She added that not enough research on what prompts weight gain has been done to determine whether timing is as important as - or even more important than - the types or amounts of food often consumed at night.

Continued on page 4

News and Announcements

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Continued from page 3

Dr. Allison was also quoted on the subject in stories in the *Latinos Health News*, *Parent Herald*, and *New Zealand Herald*.

Dr. Allison is Associate Professor of Psychology in Psychiatry and Director of Clinical Services at the Center for Weight and Eating Disorders in the Department of Psychiatry.

View the August 24, 2015 *Washington Post* article at - https://www.washingtonpost.com/national/health-science/why-eating-late-at-night-may-be-particularly-bad-for-you-and-your-diet/2015/08/24/ad8b85ac-2583-11e5-b77f-eb13a215f593_story.html

This is Your Brain on Porn



Mary Anne Layden, PhD was extensively interviewed in a September 10, 2015 *Philadelphia Daily News* article about the pervasiveness of pornography in today's culture. She specializes in the treatment of victims and perpetrators of sexual violence, sexual addicts, and sexual exploitation. Among her many insights reported in the story, Dr. Layden said that the Internet has helped unleash a "sexual tsunami," judged by the abundance of pornography that it has enabled and the negative consequences that it produces. She stated her view that this pornography is qualitatively and quantitatively different from any that has come before. This is a problem that cannot be solved by individuals and has sweeping consequences in the society, which makes it a public health problem. "Porn has now been normalized in this society, and that's massively troubling on a psychological level," she emphasized.

She also observed that pornography use can be an addiction. "Brain studies map the pathway of the centers of the brain that are engaged when drugs are used; it's the same pathway used when you're using porn," she stated.

Dr. Layden is Assistant Professor of Clinical Psychology in Psychiatry and Director of Education and Director of the Sexual Trauma and Psychopathology Program at the Center for Cognitive Therapy in the Department of Psychiatry at Penn.

View the September 10, 2015 *Philadelphia Daily News* article at - http://www.philly.com/philly/news/20150909_This_is_your_brain_on_porn.html

Getting Ahead with Modafinil: Is the Hottest New Smart Drug Safe?



David F. Dinges, PhD was quoted in a September 2015 *Men's Journal* article about potential new uses for modafinil, a narcolepsy pill. The drug has been shown to make a person a sharper thinker, a better decision maker, and generally more alert, whether or not an individual has a sleep disorder. Dr. Dinges agreed with other researchers that the drug's effectiveness for countering sleepiness isn't contested. "Regarding the issue of will [modafinil] improve your cognitive function? Probably, yes — in the domain where your brain works faster," he said. However, it is not yet known whether high doses of the drug over long periods will have serious negative side effects. Moreover, the drug may not have the same effects in different people. "We don't know yet the genetic alleles of who responds well to the drug," Dr. Dinges noted, meaning there will likely be different impacts of

the drug, as well as side effects, for people without narcolepsy. More research would help identify who should and should not use modafinil. If a person doesn't have a diagnosed disorder for modafinil, Dr. Dinges suggested turning to a cognitive enhancer that's a little more conventional - sleep. Getting a good night's sleep or a daytime nap has been found to improve learning and memory in a number of studies, along with a whole host of other benefits for the body. "Stimulants do not replace sleep," Dr. Dinges said, "and the drug won't give you what sleep can give you."

Dr. Dinges is Professor of Psychology in Psychiatry and Director of the Unit for Experimental Psychiatry and Division of Sleep and Chronobiology in the Department of Psychiatry at Penn.

View the September 2015 *Men's Journal* article at - <http://www.mensjournal.com/health-fitness/health/getting-ahead-with-modafinil-is-the-hottest-new-smart-drug-safe-20150909>

Awards and Honors

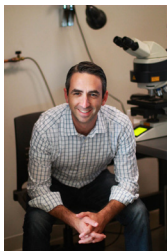
Dr. Foa Honored by American Psychological Association



Edna B. Foa, PhD received the 2015 Distinguished Scientific Contribution Award from the American Psychological Association (APA) for her contribution to the theory and clinical practice of psychology, specifically her theoretical and empirical work on the psychopathology and treatment of anxiety disorders such as post-traumatic stress disorder (PTSD) and obsessive-compulsive disorder (OCD). Her full citation reads: "For her outstanding and innovative research on the nature, measurement and treatment of anxiety, Edna B. Foa was among the group of early developers and pioneers of behavior therapy, especially exposure therapy. She proceeded to become a major force in the integration of behavior therapy and cognitive therapy. Indeed, the central idea in her highly influential emotional processing theory of exposure therapy is that cognitive change is what drives the affective and behavioral benefits produced by exposure therapy. Her theoretical brilliance and creativity, fierce intellectual courage, and clinical insight have inspired much research and informed the practice of countless therapists."

Dr. Foa presented the 2015 Distinguished Scientific Contribution Award Address on "Psychological Processes in Anxiety Related Disorders and Their Treatment: The Case of PTSD" at the APA Annual Convention in Toronto, Canada in August 2015. Dr. Foa is Professor of Clinical Psychology in Psychiatry and Director of the Center for the Treatment and Study of Anxiety in Penn's Department of Psychiatry.

Dr. Kayser Receives Funding from Burroughs Wellcome Fund



Matthew S. Kayser, MD, PhD received support from the Burroughs Wellcome Fund (BWF) designed to launch the careers of early-career investigators. He obtained a Career Award for Medical Scientists, which provides \$700,000 over five years to facilitate the transition of academic physician-scientists from mentored positions to tenure-track faculty appointments. This award is part of BWF's nationwide program totaling \$22.5 million. Dr. Kayser studies the mechanisms by which sleep, a critical and highly conserved biological process, controls brain development. He aims to examine whether abnormal sleep early in life increases susceptibility to neurodevelopmental disorders and how sleep itself might be harnessed as a novel therapeutic modality. Dr. Kayser is Assistant Professor of Psychiatry and Neuroscience in the Department of Psychiatry at Penn.

To learn more about other Penn researchers who received similar BWF awards, see the September 1, 2015 Penn *Almanac* at - <http://www.upenn.edu/almanac/volumes/v62/n03/burroughs-wellcome-fund.html#sthash.n54B4zab.dpuf>

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 designated locations. The next lectures are listed below. For more information about Grand Rounds and the 2015-16 schedule, please visit - <http://www.med.upenn.edu/psych/rounds.html>

November 12, 2015

Behavioral Sleep Medicine

Speaker: Matthew Kayser, MD, PhD

Assistant Professor of Psychiatry
Unit for Experimental Psychiatry
Division of Sleep and Chronobiology in Psychiatry
Department of Psychiatry
Perelman School of Medicine at the University of Pennsylvania

Location: Smilow Center for Translational Research Auditorium

December 3, 2015

Evidence-Based Psychosocial Treatments for Youth

Speaker: Rinad S. Beidas, PhD

Assistant Professor of Clinical Psychology in Psychiatry
Center for Mental Health Policy and Services Research
Department of Psychiatry
Perelman School of Medicine at the University of Pennsylvania

Location: BRB II/III Auditorium

December 17, 2015

Patient Safety

Speaker: Jennifer S. Myers, MD

Associate Professor of Clinical Medicine
Department of Medicine
Division of General Internal Medicine
Perelman School of Medicine at the University of Pennsylvania
Associate Designated Institutional Official for Quality and Safety
Graduate Medical Education
University of Pennsylvania Health System

Location: BRB II/III Auditorium