Investigating the Link Between Inflammation and Depression

Yvette I. Sheline, MD is leading a research team at the Center for Neuromodulation in Depression and Stress (CNDS) to explore a potential link between inflammation and depression in the peripheral blood and the brain. As reported in an April 6, 2015 WHYY radio (Philadelphia) Newsworks article, only about half of those with depression respond to anti-depressant medications. Researchers are trying to improve those odds by better understanding the mechanisms that cause this illness. A possible clue is found in evidence that people with depression have higher rates of inflammation in both their blood and their brains.

Interleukin 6 (IL-6), a protein secreted by the body to fight infection, can produce inflammation in the human body. “If you induce high levels [of IL-6] artificially with interferon, which is a treatment for cancer, then about a quarter of people who have never had depression before get depressed,” Dr. Sheline told WHYY Newsworks. She noted that IL-6 degrades serotonin, “one of the neurotransmitters involved in depression.”

Previous studies have shown that people with depression have a much higher level of IL-6, Dr. Sheline emphasized in an April 16, 2015 interview with Newsworks. “This factor, this cytokine, is associated with decreases in cognitive performance and increases in the risk for depression.” As people age, they produce more of these cytokines, suggesting a reason why late-life depression is harder to treat. “So it’s like you get a double whammy,” Dr. Sheline said. “You’ve got aging and you’ve got depression, and so the likelihood is that you may have a treatable inflammation that we could treat along with depression and get you a better treatment response.”

Before scientists embark upon a new treatment, however, there needs to be proof that there is a causal link between inflammation and depression. No one has ever proven that, but Dr. Sheline and her team are hoping their study will. “Our study, when we finish it, will be the first to actually measure cytokines in the spinal fluid that bathes the brain to see what the levels are. Then we’ll see if the people who get well are the people who have lower levels and the people who have a more difficult time getting a treatment response are the people who have higher levels,” she said.

Study participants will receive both an anti-depressant and an anti-inflammatory. Dr.
Investigating the Link Between Inflammation and Depression

Sheline explained that "people will first get treated with an anti-depressant, and we’ll see if that lowers the amount of inflammation they have and lowers their depression. And then, in the second step, we will add in an anti-inflammatory agent, and see if that gives them an improved treatment response."

Dr. Sheline is Professor of Psychiatry, Radiology, and Neurology and Director of the Center for Neuromodulation in Depression and Stress in the Department of Psychiatry.


To learn more about the ongoing study, please visit - http://www.med.upenn.edu/cnds/depression-studies.shtml

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.

Is ADHD an Epidemic?

J. Russell Ramsay, PhD was extensively interviewed on WHYY’s (Philadelphia) radio “Voices in the Family” program in March 2015 discussing Attention Deficit Hyperactivity Disorder (ADHD) and the latest research and treatment in the care of adults and children with the disease. Dr. Ramsay is Associate Professor of Clinical Psychology in Psychiatry and Co-Founder and Co-Director of the Penn Adult ADHD Treatment and Research Program in the Department of Psychiatry.


When Work and Sleep Conflict, Work Wins

Mathias Basner, MD, PhD was quoted in an April 10, 2015 New York Times article about the conflict between work and sleep. The story presents evidence from the American Time Use Survey that how much sleep people get is tied closely to how much they work. Dr. Basner, who has studied short sleepers, emphasizes this point. “People who work a lot of hours, they are much more prone to be short sleepers,” he told the newspaper. Dr. Basner is Assistant Professor of Sleep and Chronobiology in Psychiatry at Penn.

News and Announcements

In the News

Anxious All the Time
Rinad Beidas, PhD was interviewed in a May 2015 Parents Magazine story about childhood anxiety. The article points out that one in five children in the U.S. suffers from an anxiety disorder, including separation anxiety, social anxiety, and generalized anxiety disorder. The good news is that nearly 80 percent of children can control their anxiety with the help of cognitive-behavioral therapy and medication, but treatment is important. A number of leading experts in child anxiety were interviewed. Dr. Beidas’ contribution focused on the importance of early identification and treatment of childhood anxiety and the impact of not treating youth anxiety. Specifically, Dr. Beidas told the magazine, “It’s unlikely that a child will outgrow an anxiety disorder. When it’s left untreated, the child will have a higher risk of substance abuse later.” Dr. Beidas is Assistant Professor of Psychology in Psychiatry at Penn and the Director of Implementation Research at the Center for Mental Health Policy and Services Research in the Department of Psychiatry.


After Gastric Bypass, Pastor Helps Guide His Flock to Health
David B. Sarwer, PhD was quoted in an April 5, 2015 Philadelphia Inquirer story about Douglas Yancy, a local pastor who underwent gastric bypass surgery in 2011. Since then, he has guided about 15 members of his family and congregation through the procedure, and perhaps a dozen others. The article emphasizes that realistic expectations are essential prior to the procedure and that a psychological evaluation typically precedes all bariatric surgeries. In the story, Dr. Sarwer said, “Many patients expect to lose more weight than we typically see after surgery. On average, patients lose about one third of their weight within 12 to 18 months after surgery.” Bariatric surgery is associated with potential negative consequences, such as loose, hanging skin; a resurgence of old emotional issues around eating; depression; or substance abuse. In spite of this, Dr. Sarwer stated that bariatric surgery remains medicine’s most powerful weapon against severe obesity, and often leads to dramatic improvements in weight-related health problems such as Type 2 diabetes, high blood pressure, and sleep apnea.

Dr. Sarwer is Professor of Psychology in Psychiatry and Surgery at the Center for Weight and Eating Disorders in the Department of Psychiatry. He has worked with Penn’s Bariatric Surgery Program for over 15 years.


Awards and Honors

Regional, National, and International Honors

Psychiatry Faculty Again Make the “Top Doctors” List
Five (5) Department of Psychiatry physicians were recognized by Philadelphia Magazine as “Top Doctors” in the region, as reported in the May 2015 issue – Kyle M. Kampman, MD (Addiction Psychiatry); Anthony L. Rostain, MD, MA (Child and Adolescent Psychiatry); Joel E. Streim, MD (Geriatric Psychiatry); Edward S. Brodkin, MD (Psychiatry); and Michael E. Thase, MD (Psychiatry).
Awards and Honors

Regional, National, and International Honors

Dr. O’Brien Receives NIDA Lifetime Science Award

Charles P. O’Brien, MD, PhD received the 2015 Lifetime Science Award from the National Institute on Drug Abuse (NIDA) at a ceremony in Bethesda, Maryland on May 5, 2015 attended by many of his NIH and Penn colleagues, as well as by members of his family. Anna Rose Childress, PhD from the Center for Studies of Addiction in Penn's Department of Psychiatry introduced Dr. O’Brien, followed by remarks from NIDA Director Nora D. Volkow, MD. The award citation states that Dr. O’Brien received this prestigious honor for his “outstanding contributions to our understanding of the nature of addiction as a brain disorder leading to improved behavioral treatments and medications such as naltrexone for alcoholism now utilized in common practice throughout the world.” Dr. O’Brien is the Kenneth E. Appel Professor of Psychiatry and Founding Director of the Center for Studies of Addiction in the Department of Psychiatry.

Penn Honors

Dr. Juliette Galbraith Receives Dean’s Award for Clinical Teaching

Juliette Galbraith, MD received the 2015 Dean’s Award for Excellence in Clinical Teaching at an Affiliated Hospital from the Penn Perelman School of Medicine, along with three other recipients. This award recognizes “clinical teaching excellence and commitment to medical education by outstanding faculty members from affiliated hospitals.” Dr. Galbraith actively teaches clinical psychiatry to medical and nurse practitioner students, psychology interns, and psychiatry residents. She also lectures in several courses for the psychiatry residents and is part of the group psychotherapy training program for the residents as a certified group psychotherapist. Dr. Galbraith is Assistant Professor of Clinical Psychiatry, Assistant Medical Director of the Hall–Mercer Crisis Response Center at Pennsylvania Hospital, and Co-Director of the Consultation Liaison Service at Pennsylvania Hospital.

For more about Dr. Galbraith and her award, please visit the April 28, 2015 Almanac at - http://www.upenn.edu/almanac/volumes/v61/n32/pdf/042815.pdf

Dr. Henry Kranzler Receives Scott Mackler Award

Henry R. Kranzler, MD received the 2015 Scott Mackler Award for Excellence in Substance Abuse Teaching from the Penn Perelman School of Medicine. This award was established in 2000 by the Center for Studies of Addiction and the Department of Psychiatry. The late Dr. Mackler was known for his excellence in teaching medical students, residents, postdoctoral fellows, nurses, and other Penn faculty in many different departments in the area of substance abuse. Dr. Kranzler’s research focuses on the genetics and pharmacological treatment of alcohol and drug dependence and common co-morbid psychiatric disorders, including personalized treatment approaches. Throughout his nearly 30-year career, teaching students, psychiatric residents, postdoctoral fellows, and junior faculty has been a major focus of his activities. Although initially, Dr. Kranzler spent considerable time teaching the clinical aspects of addiction, over the past two decades the focus of that effort has shifted to teaching clinical investigation in the addictions.

Dr. Kranzler is Professor of Psychiatry and Director of the Center for Studies of Addiction in the Department of Psychiatry.

For more about Dr. Kranzler and his award, please visit the April 28, 2015 Almanac at - http://www.upenn.edu/almanac/volumes/v61/n32/pdf/042815.pdf
Center for Studies of Addiction

The primary mission of the Center for Studies of Addiction (CSA) is to continue to advance the cutting edge of knowledge on the nature of addiction and the best ways to relieve this terrible illness. The CSA carries knowledge from the preclinical laboratory to formal clinical trials and translates knowledge learned from these clinical trials to the average practitioner in the community. Thus the medications and behavioral treatments discovered in this research can have an impact on the care received by patients all over the world. To learn more about the CSA and its current clinical trials, please visit www.med.upenn.edu/csa/.

Discounted Rates for Workshop on CBT for Challenging Cases

Join us on June 23rd for PBHMind’s final workshop of the 2014-2015 academic year. Faculty from the University of Pennsylvania’s Department of Psychiatry present an afternoon workshop for mental health professionals on cognitive-behavioral therapy for challenging cases. Take advantage of the group and student discounts available. You can read more about the speakers, lectures, and CE opportunities on our website at www.pbhmind.com/cbt-symposium-15.

Final CNB Seminar of the Year

The Center for Neurobiology and Behavior (CNB) will be holding its final seminar of the 2014-2015 academic year on Friday, May 29th at 11:00 am in the Translational Research Laboratory Building. Dr. Jacquetta Trasler will be presenting a talk entitled “Lifelong Consequences of Perturbing Perinatal Epigenetic Programs.” For additional information, please visit the CNB website at www.med.upenn.edu/cnb/.

Upcoming Events

PBHMind Symposia Series

The University of Pennsylvania Department of Psychiatry and Penn Behavioral Health invite practitioners in the mental health and wellness arena to earn continuing education credits and Certificates of Advanced Training through PBHMind. Courses are designed to provide varying levels of knowledge for psychologists, social workers, therapists, and other practitioners in various topic areas. Visit our website at www.pbhmind.com to learn more about our programs and to view our full course catalog.

June 23, 2015

CBT for Challenging Cases: Blending Empirically Supported Approaches with Clinical Experience and Wisdom

Speakers: Martin E. Franklin, PhD, Elizabeth A. Hembree, PhD, Cory F. Newman, PhD, ABPP

4 CE Hours

Smilow Center for Translational Research
Philadelphia, PA

http://www.pbhmind.com/cbt-symposium-15