



Psychiatric Research Report

2005 Research Awards

APA Award for Research in Psychiatry

The APA Award for Research in Psychiatry recognizes a body of work or a lifetime contribution that has had major impact on the field and/or has altered the practice of psychiatry. The 2005 award is shared by two leaders in the arena of psychiatric research,

recipients, **Dilip V. Jeste, M.D.**, of University of California, San Diego, and **Herbert Y. Meltzer, M.D.**, Vanderbilt University School of Medicine. Each recipient will deliver an award lecture at the APA Institute on Psychiatric Services (IPS) meeting in San Diego, rather than at the APA Annual Meeting in Atlanta, in accordance with APA lecture rotation policy. Dr. Meltzer's lecture, "Algorithms for Treatment of Schizophrenia," will be delivered on Wednesday, October 5, from 10:00 – 11:30 a.m.; Dr. Jeste's lecture,

"Schizophrenia and Aging: Separating Facts From Fiction," will be presented from 8:00 – 9:30 a.m. on Saturday, October 8. (Information about the IPS is available on the APA Web page.)

Dr. Meltzer will be honored for his extensive research contributions on the etiology and treatment of schizophrenia and on the mechanisms of action of antipsychotic drugs. Dr. Meltzer is recognized throughout the world as the foremost authority on clozapine, the prototypical atypical antipsychotic medication. Beginning with a series of basic studies (at NIMH) in 1966, Meltzer's research work and clinical findings developed over two decades into the U.S. Multicenter Clozaril Study, the clinical trial credited with launching the modern era of atypical antipsychotic drugs. Indeed, the atypical antipsychotics have become the dominant treatment not only for treatment-resistant schizophrenia but for other psychiatric disorders (treatment resistant depression, borderline syndrome) and for neurologic disorders such as Parkinson's disease, dementias, and Huntington's chorea. In the treatment of schizophrenia, clozapine has demonstrated the ability to improve cognitive function and to reduce the risk of suicide. Dr. Meltzer's contributions to the

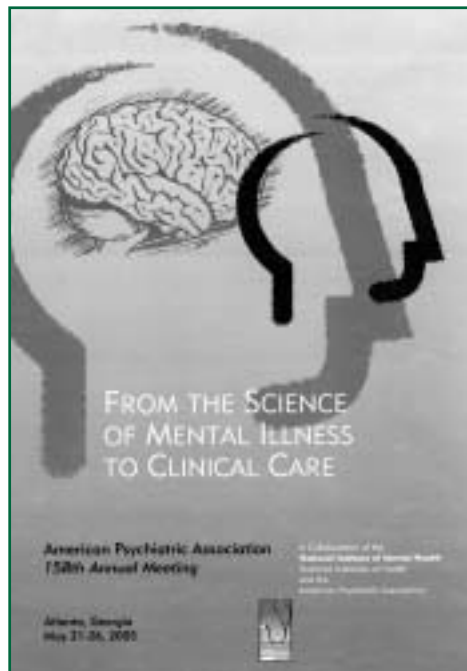
field of psychiatry include training and mentoring a number of today's most distinguished research psychiatrists.

Dilip Jeste's influence on the field is identified most prominently with issues in geriatric psychiatry.

He is recognized for his pioneering work identifying and characterizing late-onset schizophrenia and for the work that has led to treatment guidelines tailored for application in elderly populations. Motivated by the lack of basic information on older, community-dwelling patients with schizophrenia, Dr. Jeste initiated and implemented a series of comprehensive longitudinal studies on the psychopathology, psychophysiology, neurocognition, and available treatments in this under-acknowledged patient population. Based on the findings from these studies, Jeste developed a nosologic schema of late-life psychosis, proposing hypotheses for differential age of onset and developing new interventions for treating elderly patients. The research has had a number of real-world implications.

Based substantially on Dr. Jeste's research, the *DSM-III* "age exclusion," that is, excluding a diagnosis of schizophrenia if onset of illness is after age 45, is no longer a restriction sanctioned in subsequent editions of the *DSM*. Similarly, research showing significant differences for the effects of antipsychotic agents in younger and older subjects influenced the FDA to initiate a new "Geriatric Rule" requiring trials of psychotropic agents (and especially antipsychotic agents) in elderly populations before a drug could be approved for use in this population. Today the dosing guidelines recommended for clinical practice and those employed in clinical trials with elderly patients are based on findings derived from Dr. Jeste's work. Dr. Jeste is Past President of the American Association of Geriatric Psychiatry, and he currently serves as Editor-in-Chief of the *American Journal of Geriatric Psychiatry*.

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Psychiatric Research

Report

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Psychiatric Research Report
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Chiharu Tobita
Research Training Project Assistant

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Practice Research Network (PRN)

Joshua Wilk, Ph.D.
Research Scientist

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Judd Marmor Award – 2005

Thomas R. Insel, M.D., has been selected as recipient of the 2005 APA Judd Marmor Awardee. Dr. Insel is current director of the National Institute of Mental Health. He is being honored for the contribution his research has made to understanding the biopsychosocial aspects of mental illness. Dr. Insel will deliver the 2005 Judd Marmor Award Lecture at the APA Annual Meeting on Tuesday, May 24, 11:00 – 12:30. The lecture, “Psychiatry in the Genomic Era,” will address the impact that two decades of technological advances and scientific insights will have on the future of psychiatric training and research; shifts in both areas will be required, predicts Insel.



Dr. Insel's appointment as NIMH director marked his return to NIMH after an eight-year hiatus at Emory University. There, he was founding director of the Center for Behavioral Neuroscience and, concurrently, director of an NIH-funded Center for Autism Research. From 1994 to 1999, Insel was director of the Yerkes Regional Primate Research Center in Atlanta.

While at Emory, Dr. Insel continued the line of research he had initiated at NIMH, studying the neurobiology of complex social

behaviors in animals. A particular focus of his work was the role of the neuropeptides oxytocin and vasopressin in social attachment – including, for example, maternal behavior and pair-bond formation – and in aggressive behavior. This work established his place on the ISI's list of the 200 most frequently cited neuroscientists in the 1990s. Early in his NIMH research career, which extended from 1979 to 1994, Dr. Insel conducted clinical research on obsessive-compulsive disorder, conducting some of the first treatment trials for OCD using the selective serotonin reuptake inhibitors (SSRI) class of medications. He has published over 200 scientific articles and four books, including *The Neurobiology of Parental Care* (with Michael Numan) in 2003.

Dr. Insel is a member of the Institute of Medicine, the American College of Neuropsychopharmacology, the Society for Biological Psychiatry, and the International Society of Psychoneuroendocrinology. He graduated from the combined B.A.-M.D. program at Boston University in 1974, did an internship at Berkshire Medical Center, Pittsfield, Massachusetts, and completed his residency at the Langley Porter Neuropsychiatric Institute at the University of California, San Francisco.

Alexander Gralnick Award for Research in Schizophrenia

The recipient of the 2005 Alexander Gralnick Award for Research in Schizophrenia is **Anthony F. Lehman, M.D., M.S.P.H.**, current Chair of the Department of Psychiatry at the University of Maryland School of Medicine. The award honors Dr. Lehman's long and productive research career on treatment outcome with patients suffering from schizophrenia.

Early research focused on developing quality of life measures to assess treatment outcome with schizophrenic patients. This work is generally recognized as pioneering in applying the “quality of life” concept to persons with severe mental disorders. Dr. Lehman developed the Quality of Life Interview in the late 1970s, spawning a large number of followup studies. Major contributions of this work include evidence that: these patients can provide reliable and valid self-assessments of quality of life; quality of life experiences are relatively independent of symptoms; quality of life is relatively unresponsive to medication alone but can be enhanced by targeted psychosocial treatment.

As director of the Long-Term Care Program at the University of Rochester, Dr. Lehman expanded his research focus by initiating an innovative treatment program for young adults with severe mental illnesses. This work introduced supportive family therapy



and behavioral family management into the treatment of these young patients, a controversial concept at the time.

With his move to Baltimore, Dr. Lehman's research turned to focus on treatment issues characteristic of innercity, publicly funded community mental health services: comorbidity, homelessness, incarceration alternatives, and supportive employment programs. With NIMH and SAMSHA support, he developed and evaluated a program of assertive community treatment (ACT) for homeless persons with severe mental illnesses, demonstrating superior outcomes and cost-effectiveness of this approach.

Lehman's current work is devoted to the development, dissemination, and adoption of evidence-based treatment recommendations for families of, and practitioners working with, patients suffering from schizophrenia and other severe mental disorders. In 2003, Dr. Lehman served as chair of the work group that developed APA's Practice Guideline for the Treatment of Patients With Schizophrenia (2nd edition), which was published in February 2004 and is currently available on the APA Web site. This work will be elaborated in Dr. Lehman's Alexander Gralnick Award Lecture at the APA 2005 Institute for Psychiatric Services meeting in San Diego, October 5 – 9.

(continued on next page)

Blanche F. Ittleson Award for Research in Child Psychiatry

John S. March, M.D., M.P.H., will be awarded the 2005 Ittleson Award at the Convocation of the APA Annual Meeting in Atlanta. The award honors publications reporting the results of research pertaining to the mental health of children. The August 18, 2004 issue of *The Journal of the American Medical Association (JAMA)* features results of The Treatment for Adolescents With Depression Study (TADS), the major NIMH-funded clinical trial for which Dr. March was the Principal Investigator and team leader. The article is titled, "Fluoxetine, Cognitive-Behavioral Therapy, and Their Combination for Adolescents With Depression," and appears on pages 807 – 820.



Dr. March is known for his extensive work developing and testing the efficacy and effectiveness of cognitive-behavioral and pharmacological treatments for pediatric mental disorders; specifically in the design and implementation of Phase III and IV clinical trials in pediatric psychopharmacology. His work is widely published in the areas of OCD, PTSD, ADHD, anxiety, depression, and pediatric psychopharmacology. Recent books are: *OCD in Children and Adolescents: A Cognitive-Behavioral Treatment Manual* and *Phobic and Anxiety Disorders: A Clinician's Guide to Effective Psychosocial and Pharmacological Interventions*.

Dr. March holds a K24 Career Development Award from NIMH devoted to clinical trial methodology, and he is a member of the Steering Committee that oversees the NIMH-funded Multimodal Treatment of ADHD Study. Currently he is working to establish a practical clinical trials network in pediatric psychiatry, the Child and Adolescent Psychiatry Trials Network (CAPTN).

Dr. March is Professor of Psychiatry and Chief of Child and Adolescent Psychiatry at Duke University Medical Center, with simultaneous faculty appointments at the Duke Clinical Research Institute and in the Department of Psychology. March received a BA from the University of California, Riverside, and an MS in molecular biology from the University of California, Berkeley. He obtained an MD-MPH (in epidemiology) from the UCLA School of Medicine, and later completed a residency in Family Practice at that institution. Following several years as a family practitioner in rural Montana, Dr. March trained in Child and Adolescent Psychiatry in the Department of Psychiatry, University of Wisconsin. ■

Call for Submissions

2006 Blanche F. Ittleson Award for Research in Child Psychiatry

This award is presented to a psychiatrist or a group of psychiatric investigators for research published within the last five years, or accepted for publication, that has resulted in, or promises to lead to, a significant improvement in promoting the mental health of children and adolescents. The award consists of \$2,000 and a plaque presented at the APA Annual Meeting. *Application deadline: August 2, 2005.*

2006 Alexander Gralnick Award for Research in Schizophrenia

The Gralnick Award acknowledges research achievements in the treatment of schizophrenia. Preference is given to research carried out in a psychiatric facility and to work that emphasizes psychosocial aspects of the treatment process. The award consists of \$4,000 and an award lecture that is always delivered at the APA Institute on Psychiatric Services held each fall. *Application deadline: September 1, 2005.*

2006 Award for Research in Psychiatry

This award is given in recognition of a single distinguished contribution, a body of work, or a lifetime contribution that has had a major impact on the field and/or altered the practice of psychiatry. The award is intended to cover the full spectrum of psychiatric research. The award consists of a \$5,000 honorarium and an award lecture. *Application deadline: September 1, 2005.*

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Diagnostic Issues in Substance Use Disorders

A Summary

Prepared by Michael B. First, M.D.

The second* diagnosis-related research planning conference in the series "Future of Psychiatric Diagnosis: Refining the Research Agenda" was held February 14 – 17, 2005 at the National Institute on Alcohol Abuse and Alcoholism in Rockville, MD. The meeting focused on diagnostic issues in Substance Use Disorders in future diagnostic classifications (both *DSM-V* and *ICD-11*), and was co-chaired by **Marc Schuckit, M.D.**, from the San Diego VAMC in La Jolla, California, and by **John Saunders, M.D.**, from the Royal Brisbane Hospital in Brisbane, Australia.

The co-chairs and **Darrel A. Regier, M.D.**, Executive Director of APIRE, welcomed the forty-three invited scientists from the United States and abroad, each of whom had a designated role as presenter, discussant, or audience discussion participant.

Bengt Muthen, Ph.D. (Los Angeles, CA), began the formal presentations with a paper that discussed methodological issues pertinent to determining whether substance use disorders are best represented as categorical or dimensional constructs. Traditionally latent class analysis has been used to model categorical constructs whereas factor analysis, looking for continuous latent variables, is used for dimensional models. Dr. Muthen recommended using newer methods, such as a hybrid analysis technique called latent class factor analysis (LCFA) and growth mixture modeling, to allow both categories and dimensions to be derived from the same analysis. **Colin Drummond, M.D.** (London, UK), was the discussant for Dr. Muthen's presentation.

Two presentations considered whether the scope of addictive disorders should be broadened to include disorders such as pathological gambling, which is currently included in the Impulse Control Disorders section of the *DSM-IV*. **Marc Potenza, M.D.** (New Haven, CT), noted that substance dependence and pathological gambling have high rates of co-occurrence, share similar clinical characteristics (loss of control, tolerance, and withdrawal), have a similar clinical profile (high rates in adolescence, lower rates in older adults), similar biology (involving the mesocortical limbic dopamine system and frontal serotonin system), and similar treatments (cognitive-behavioral therapy, naltrexone).

While agreeing that the two conditions do appear to share a number of features, **Nancy Petry, Ph.D.** (Farmington, CT), cautioned that some of the similarities may be an artifact of substance dependence and pathological gambling sharing similar criteria sets that have never been adequately validated. She noted that there were other important differences as well (e.g., extremely high placebo response rates for pathological gambling in contrast to substance use disorders). Additional research is necessary to determine whether the benefits of expanding the construct of addiction (e.g., expanding treatment opportunities for pathological

Research Planning for *DSM-V*

This summary captures proceedings of the second diagnosis-related conference in a series of eleven research planning conferences launched in 2004 under the collective rubric, "Future of Psychiatric Diagnosis: Refining the Research Agenda." The conference series is a prelude to the next revision of the *Diagnostic and Statistical Manual of Mental Disorders*. The formal revision process is slated to begin in 2007 with publication of the revised manual projected for 2012 (estimated dates). As described more fully in the Winter 2004 issue of the *Psychiatric Research Report* (available online), "the conference series was designed to address an array of nosological topics deemed either to be particularly problematic in the current classification [*DSM-IV*] or most likely to benefit from new and emerging research capabilities and methodologic techniques."

The conference series is organized and administered by APA's research arm, the American Psychiatric Institute for Research and Education (APIRE) under a five-year, \$1.1 million cooperative grant jointly funded by the NIMH, NIDA, and NIAAA. The purpose of each conference, according to Darrel Regier, Executive Director of APIRE, is to "stimulate empirical research in advance of the formal revision, and develop alternative research criteria for investigations into the etiology and pathophysiology of disorders."

The proceedings (that is, the formal presentations as well as the ensuing discussions) for each of the eleven conferences in the research planning series will be published in a collection of parallel monographs by American Psychiatric Publishing Inc. Information about the full panoply of *DSM-V* research planning activities is continuously updated on the new *DSM-V Prelude* Web site. Summaries of the research planning conferences will also appear on the *Prelude* site. The site offers a number of useful links for researchers and for clinicians, with opportunities for an ongoing online dialogue between APA and the users of *DSM*. (See **Quick Links** at www.dsm5.org.)

gambling) outweigh the increased risk of stigma. **Mats Berglund, M.D.** (Malmo, Sweden), was the discussant for this topic.

Anna-Rose Childress, Ph.D. (Philadelphia, PA), gave the next presentation considering whether biological criteria should be included in the definitions of substance use disorders. Although technical limitations suggest that diagnostically useful biological tests such as neuroimaging will not be available in time for *DSM-V*, neurobiological studies are crucial for future understanding of the pathophysiology of substance addiction. Most individuals exposed to rewarding drugs of abuse do not become addicted.

*A summary of the first diagnosis-related conference, "Dimensional Models of Personality Disorders," appeared in the Winter 2005 issue of the *PRR*, available online at www.psych.org/research/prr.index.

Those who do might have a dysfunction in meso-cortico-limbic circuitry ("GO" systems) involved in seeking reward and/or a dysfunction in prefrontal cortical systems ("STOP") that allow individuals to pause and weigh the consequences of their actions. Evidence for problems in "GO" systems includes the low D2 dopamine receptors seen in neuroimaging studies of chronic cocaine users and the blunted dopamine release to a stimulant challenge. Problems with "STOP" circuitry might be indicated by the poor performance of substance users on decision-making tasks. Whether these abnormalities represent a vulnerability factor in susceptible individuals or are a consequence of the substance use itself is unclear. Studying individuals early in the course (adolescents) will be crucial for solving this chicken-and-egg problem. **Ming Tsuang, M.D., Ph.D.** (San Diego, CA), served as the discussant.

The concepts of Dependence and Non-Dependence in *DSM* and *ICD* were the focus of two presentations. **John Saunders, M.D.** (Brisbane, Australia), noted that although the *DSM* and *ICD* have very similar definitions of substance dependence (characterized by loss of control over substance use, and tolerance/withdrawal), historically the *DSM* and *ICD* have had different paradigms for less severe forms of maladaptive substance use, which overlap only partially. *DSM-IV* defines substance abuse as a residual category (diagnosed only if criteria for dependence are not met) characterized by negative consequences of recurrent or continued use: role impairment, legal problems, use when hazardous, and continued use despite social and interpersonal problems. *ICD-10* includes a category for harmful use requiring demonstrable physical or psychological harm, and in early drafts included a category for hazardous use that puts the individual at risk for future harm. Saunders called for additional research on the non-dependence end of the substance use spectrum in order to make *DSM* and *ICD* more concordant in the future.

Deborah Hasin, Ph.D. (New York, NY), noted that both *DSM* and *ICD* have withdrawal criteria for each substance except for cannabis and hallucinogens, but that *ICD* generally requires fewer symptoms to make a diagnosis. Dr. Hasin pointed to mounting clinical evidence for the role that cannabis withdrawal plays in maintaining dependence; she called for additional research to determine whether cannabis withdrawal should be included as a criterion for dependence in both classifications. *DSM* and *ICD* also differ in criteria for remission from substance dependence and in definitions of substance-induced disorders. Dr. Hasin called for additional research regarding the validity of both abuse and dependence, noting that empirical data suggest dependence and abuse are orthogonal concepts, and both should be diagnosed if present. **Kathleen Bucholz, Ph.D.** (St. Louis, MO), served as discussant.

Javier Escobar M.D. (Piscataway, NJ), considered whether different criteria are needed for substance use disorders in specific cultures. Dr. Escobar provided a general introduction to the topic of cross-cultural diagnosis noting that the *DSM* has not been culturally tested, although it has been used internationally. He suggested that the focus in the *DSM* on race and ethnicity might be uniquely applicable to the U.S. population, but that in a global classification system descriptors concerning country to origin and immigrant status would be more informative. Two key questions relating ethnicity and psychopathology were raised: Do symptom clusters of psychiatric disorders differ across cultures, and can these

symptoms and syndromes be reliability defined, understood, and elicited in all countries and ethnic groups?

Robin Room, Ph.D. (Stockholm, Sweden), discussed potential cultural variations in the meaning and meaningfulness of dependence, abuse, harmful use, intoxication, and withdrawal. He reviewed studies on the cross-cultural applicability of substance use disorder criteria; these provided evidence for some level of cross-cultural generalizability as well as evidence of divergent thresholds applied across different cultures. Dr. Room offered a number of proposals to improve the cross-cultural applicability of criteria for these disorders, including: avoiding the use of causally attributive language; avoiding references to feeling and affect states; avoiding the use of culturally specific circumstances and activities; and specifying thresholds contained in the items. **Maristela Monteiro M.D.** (Washington, DC), and **Vladimir Poznyak M.D., Ph.D.** (Geneva, Switzerland), were the discussants for presentations on cross cultural factors.

Tom Crowley, M.D. (Denver, CO), reviewed issues regarding the need for substance use criteria tailored specifically for adolescents. He noted that the current criteria for substance use disorders generally work well in adolescents. Current criteria show validity (clearly discriminating patients from controls; validly grouping adolescents based on severity) and how good inter-rater reliability. Crowley suggested six areas that would benefit from research focused on adolescents: 1) research to determine whether cannabis withdrawal should be added to *DSM-V*; 2) research into the relationship of substance use disorders and disruptive behavior disorders; 3) research into the possibility of rephrasing some of the substance abuse criteria to increase reliability and validity in adolescents; 4) research to determine whether earlier onset of substance use disorders, between age 14-18, is a marker predicting severity of outcome; 5) research to determine whether substance use diagnoses in adolescents should take into account the total number of substances and number of diagnostic criteria met; 6) research to develop procedures for assimilating new substances that emerge on the market after publication of *DSM-V* into the classification system. **David Reiss M.D.** (Washington, DC), was the discussant.

The question of substance-specific criteria sets for substance dependence was the focus of the next two presentations. Currently, *DSM* and *ICD* use generic substance dependence criteria that apply to all substances. **Alan Budney, Ph.D.** (Burlington, VT), focused his paper on cannabis dependence. He proposed that since cannabis is considered to be a "soft" drug (distinguishing it from cocaine, heroin, and perhaps alcohol), if the *DSM-IV* criteria adequately characterize cannabis dependence, then one could argue that the criteria are valid for all disorders. Findings from the literature on cannabis dependence converge to suggest that the *DSM* criteria do an admirable job of capturing the construct, although a few abuse and dependence items do not perform well. Strategies that might improve diagnostic sensitivity and specificity include: differential weighting of specific items and differential thresholds for mild, moderate, and severe dependence across substances.

John Hughes, M.D. (Burlington, VT), provided evidence that generic dependence criteria do not work very well, at least as they

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apply to nicotine dependence (and possibly to hallucinogens and inhalants). Dr Hughes noted that among researchers studying smoking and nicotine dependence, the *DSM-IV* criteria have been overwhelmingly rejected: in the last 100 randomized clinical trials, only two trials used the *DSM-IV* criteria for nicotine dependence. Several of the dependence criteria do not apply to nicotine, including tolerance and using more than intended. Potential nicotine-specific criteria include level of consumption, time-to-first use, automaticity, use for cognitive enhancement, use for weight control, use for affect control, and use for stimulation. **Wilson Compton, M.D.** (Bethesda, MD), was the discussant for both presentations on substance-specific criteria.

Thomas Babor Ph.D. (Farmington, CT), presented potential subtypes of Dependence and Abuse. After describing various rationales for including subtypes (e.g., facilitating treatment selection, indicating differential prognosis) Dr. Babor reviewed the subtypes for alcohol dependence that have been proposed in the past: continuous vs. binge use, familial vs. non-familial, affiliative vs. schizoid, primary vs. secondary, milieu-limited vs. male-limited and late-onset vs. early-onset. He noted that there is good evidence, in terms of construct and predictive validity, for two to four subtypes of alcohol dependence; even better evidence is available for individual vulnerability factors such as age at onset, family history, and associated antisocial personality disorder.

Victor Hesselbrock, Ph.D. (Farmington, CT), reported that individuals with alcohol dependence can be clustered into four types that are associated with differential outcomes at one- and three-year follow-up: an early-onset type (high severity of dependence symptoms), a late onset type (low severity), an internal type (high alcohol intake associated with anxiety and depression), and an external type (associated with comorbid antisocial personality disorder). He recommended research that would apply Robins and Guze criteria to these subtypes to determine their validity. **Lutz Schmidt, M.D.** (Mainz, Germany), served as the discussant.

Marc Schuckit M.D. (La Jolla, CA), presented on the comorbidity of substance use disorders and other psychiatric disorders and on the importance of substance-induced disorders. He stressed the need to examine the methodology used in comorbidity studies when interpreting data such as prevalence. Dr. Schuckit emphasized the importance of considering whether the drug can be etiologically related to the psychiatric syndrome supposedly being mimicked (e.g., alcohol does not cause mania) and of considering onset and offset of psychiatric symptoms in relation to substance use. There is convincing evidence that

substance-induced disorders exist (particularly for substance-induced psychotic, mood, and anxiety disorders), that they are clinically significant, and that they respond to treatment (antidepressants, for example, work for depression occurring in the context of alcohol dependence).

Bruce Rounsaville, M.D. (New Haven, CT), reviewed the existing criteria for substance-induced disorders in *DSM* and suggested considering revised guidelines for timing and severity of substance-induced psychiatric symptoms. He recommended against making changes, however, without evidence of clear benefits. **Edward Nunes, M.D.** (New York, NY), discussed these presentations.

John Helzer M.D. (Burlington, VT), presented a paper on the use of categorical and dimensional criteria for substance use disorders in *DSM-V*. Noting that both approaches have merit, Helzer made a number of suggestions about how categorical and dimensional approaches could both be implemented: by using *DSM* categorical definitions to make up the items of the dimension; by summing the categorical criteria to create a dimensional scale; and by adding associated features to the categorical criteria to create a broader item pool for later statistical analysis. **Somnath Chatterji M.D.** (Geneva, Switzerland), served as discussant.

Invitees who participated in discussion on each of the above topics included: ■ Sawitri Assanangkornchai, M.D. (Hat Yai, Thailand), ■ Deborah Deas, M.D. (Charleston, SC), ■ Susumu Higuchi, M.D., Ph.D. (Yokosuka, Japan), ■ Bong-Jin Hahm, M.D. (Seoul, Korea), ■ Bankole Johnson, M.D., Ph.D. (Charlottesville, VA), ■ David Kavanagh, Ph.D. (Brisbane, Australia), ■ Evgeny Krupitsky, M.D., Ph.D. (St. Petersburg, Russia), ■ Sam Kuperman, M.D. (Iowa City, IO), ■ Jack Maser, Ph.D. (San Diego, CA), ■ Maria Elena Medina-Mora, Ph.D. (Colonia Huipulco, Mexico), ■ A. Olabisi Odejide, M.D. (Ibadan, Nigeria), ■ William Vega, Ph.D. (Piscataway, NJ), and ■ George Woody, M.D. (Philadelphia, PA). ■ Glorisa Canino, M.D. (San Juan, Puerto Rico), ■ Norman Sartorius, M.D. (Geneva, Switzerland), ■ Maree Teesson, Ph.D. (Randwick, Australia) and ■ Wim den Brink, M.D. (Amsterdam, Netherlands) were corresponding participants.

The next conference in the research planning conference series will be *Stress and Fear-Circuitry Disorders*, co-chaired by Dennis Charney, M.D., and Gavin Andrews, M.D. The meeting will take place in Washington, DC, June 22 – 24, 2005. ■

APA Council on Children, Adolescents, and Their Families

The Clinical Use of SPECT Single Photon Emission Computed Tomography

Summary.

Although knowledge is increasing regarding specific pathways and specific brain areas involved in mental disease states, at present the use of brain imaging to study psychiatric disorders is still considered a research tool. Continued study of child and adolescent psychiatric disorders using a variety of brain imaging methods, as well as refinements in imaging techniques, may result in evidence supporting the utility of these tools for clinical work in the future. Imaging research cannot *yet* be used to diagnose psychiatric illness and may not be useful in clinical practice for a number of years. In the future, imaging techniques may be useful to examine medication effects and to predict medication response.

Specifically, no published investigation in the field has determined that any structural or functional brain abnormality is specific to a single psychiatric disorder. Additionally, imaging studies examine

groups of patients and groups of healthy controls; therefore, findings may not apply to all individuals with a given disorder. Even when significant differences are identified between groups, there is substantial overlap among individuals in both groups.

Particular caveats are indicated with regard to brain imaging involving radioactive nucleotides for children and adolescents because of children's known greater sensitivity to radiation and risk of radiation-induced cancer. The long-term risks of initial and repeated exposure to intravenous radio nucleotides are unknown.

We conclude that, at the present time, the available evidence does not support the use brain imaging for clinical diagnosis or treatment of psychiatric disorders in children and adolescents.

Background

The APA Resource Document presented here was developed by the APA Council on Children, Adolescents, and Their Families and reviewed by the APA Council on Research. The content of the Resource Document was approved by the APA Joint Reference Committee in January 2005 with the traditional caveat that, "The findings, opinions, and conclusions of this report do not necessarily represent the views of the officers, trustees, or all members of the APA."

It is important to note that the Council on Children, Adolescents, and Their Families undertook this project in response to concerns expressed by clinicians, researchers, and parents, about the burgeoning use of SPECT scans for diagnosing behavioral disorders in children and adolescents. After careful study of existing evidence on current technology and its clinical applications, and after appropriate consultations with experts within and outside the APA, the Council presents its review with accompanying documentation of the sources studied.

This Resource Document can be found on the APA Web site using the following path: www.psych.org; click Public Information; click Families and Children; Report on SPECT Scans.

Overview of brain imaging

Single photon emission computerized tomography (SPECT) is one type of functional neuroimaging, a category that also includes positron emission tomography (PET), magnetic resonance spectroscopy (MRS), and functional magnetic resonance imaging

(fMRI). Functional neuroimaging yields metabolic or biochemical information that allows localization of a neural function. As such, it is distinct from anatomic imaging, such as radiography (X-Ray) or computerized tomography (CT), which illuminate structures in a static way. Functional neuroimaging of the brain is based on the experimental data that neuronal activation leads to increased metabolism. Using radionucleotides to ligands possessing high and selective affinity for neurotransmitter receptors or transporters allows for imaging of specific neuroreceptors (Shin, 2000).

Brain-imaging tools, such as PET, SPECT, MRS and fMRI, can relate brain function to clinical features and medication responses (Brody et al., 2001; Ketter & Wang, 2002). MRS allows for identification of neurochemical abnormalities in specific brain regions and can identify neurochemical changes prior to and following medication administration. MRS is non-invasive and does not necessitate exposure to radioactive nucleotides. SPECT makes use of radioactive tracers tagged to a molecule, which can indicate glucose metabolism, oxygen consumption, or blood flow. Chemical imaging with a SPECT scan works with precursors such as tryptophan, dihydroxyphenylamine (Dopa) or enzymatic reactions that support neurotransmitters synthesis (Santosh, 2000).

History

SPECT was originally introduced in the 1980s (Goetz, 2003). Its usefulness was limited in the early years by poor image resolution. However, refinements in computer technology as well as in

(continued on next page)

radionucleotides have resulted in much better image quality, although not as good as with PET. The equipment needed for SPECT is much less costly than that needed for PET scanners (which require a cyclotron) MRI or other forms of imaging. While PET, CT and MRI are limited to hospitals because of their cost, SPECT equipment is within range of outpatient office equipment. There are no regulations that prohibit individual physicians from installing and using SPECT equipment in their offices, provided they have satisfied regulatory requirements. Because of its low cost, SPECT is being used in outpatient private practice, and some have advocated for its use in clinical diagnosis of psychiatric disorders (Amen, 2001).

Established uses of brain imaging in clinical practice

Brain imaging does have important clinical uses. Structural and functional images of the brain play an important adjunct role in the diagnosis and treatment of many neurological conditions. The usefulness of SPECT to study perfusion abnormalities in the brain as well as elsewhere (e.g., the myocardium, carotid arteries) is well established. SPECT has a role in the diagnosis of cerebral trauma, certain kinds of dementia, strokes, seizure disorders, and brain tumors, in which characteristic patterns of perfusion abnormalities are detectable (Engel, Jr., 2000; Goetz, 2003; Kuzniecky & Knowlton, 2002; Lee, Mintun, Buckner, & Morris, 2003; Slosman & Lazeyras, 1996). In addition, Brain SPECT with neuroreceptor imaging radiopharmaceuticals is used in cerebrovascular diseases, dementias, epilepsy, head injury, malignant brain tumors, movement disorders, and Gilles de la Tourette's syndrome (Camargo, 2001). This imaging modality has been used in diagnosis, prognosis assessment, evaluation of response to therapy, risk stratification, detection of benign or malignant viable tissue, and choice of medical or surgical therapy.

However, even in the diagnosis of neurological disorders, the use of brain imaging is not without controversy. Recent reviews have attempted to establish guidelines to avoid over use for such common conditions as headache (Lewis, 2002; Medina, Kuntz, & Pomeroy, 2001), and a cost-effectiveness study concluded that the addition of SPECT and fMRI did not offer advantages over the usual diagnostic workup of Alzheimer's disease (McMahon, Araki, Neumann, Harris, & Gazelle, 2000). The primary clinical use of SPECT in psychiatry has been to rule out the neurological conditions listed above.

Brain Imaging in Research. Brain imaging has been used extensively in research on psychiatric disorders, most notably, obsessive-compulsive disorder, schizophrenia, depression, panic disorder, and drug abuse. The findings, although not entirely robust, have generated many hypotheses about the pathophysiology of these disorders. The following is a brief summary of the research studies of psychiatric disorders in which brain imaging tools, including SPECT, have proven fruitful.

Attention Deficit/Hyperactivity Disorders. Findings in Attention Deficit/Hyperactivity Disorders are still provisional, but suggest minor structural changes in frontal and caudate areas, especially on the right side. Functional studies suggest reduced activation in

these and other areas. A 2000 review of studies in children and adults concluded, "The techniques do not yet contribute to individual diagnosis." (Overmeyer & Taylor, 2000)

Autism. Autism has been studied in adults as well as children using MRI, fMRI, and SPECT. MRI studies have indicated a variety of diffuse anatomical differences, reflective of an early developmental change in the growth or pruning of neural tissue, rather than localized lesions; similarly, neurochemical studies suggest early, neuromodulatory discrepancies rather than gross or localized abnormalities. To date we do not have definitive answers to questions of how the brain functions differently in this disorder (Eigsti & Shapiro, 2003; Rumsey & Ernst, 2000).

Bipolar Disorder and Depression. Although over the past two decades, brain-imaging studies have examined the mechanisms possibly involved in the pathophysiology of bipolar and unipolar mood disorders, nearly all of these studies involve adults. Most studies have used PET scans (and none of the PET studies involve children). The available findings suggest subtle anatomical changes in sub-regions of the prefrontal cortex, medial temporal lobe and cerebellum, and functional abnormalities in brain circuits inter-connecting these same brain regions and the striatum in patients suffering from bipolar disorder. Neuroimaging studies have reported cerebral atrophy, ventricular enlargement, or cerebellar atrophy (Benabarre et al., 2002).

In terms of function, findings with PET have included decreased prefrontal cortical function concomitant with increased subcortical anterior paralimbic activity (Drevets et al., 1997; Videbeck, 2000). These findings are convergent, and support the hypothesis that depressive symptoms are caused by dysfunction of regions of the limbic system and the frontal lobes in close connection with the basal ganglia. A few studies point to the possibility that response to antidepressant treatment can be predicted from PET scans (Soares, 2003).

There are two published studies of SPECT and depression in adolescents (Tutus et al., 1998; Kowatch et al., 1999). The first, done in Turkey, involved 14 patients and 11 controls, found relatively reduced perfusion in the left anterofrontal and left temporal cortical areas in the depressed patients. When the patients were restudied after their depression remitted, they did not differ significantly from the controls. The second study involved a comparison of seven adolescent patients with MDD and 7 controls, and found relative rCBF increases in the depressed group as compared to normals in the right mesial temporal cortex, the right superior-anterior temporal lobe, and the left infero-lateral temporal lobe. The researchers found rCBF decreases in the depressed group as compared to normals in the left parietal lobe, the anterior thalamus and the right caudate. They concluded that adolescents with MDD show rCBF abnormalities similar to those found in adult MDD rCBF studies, but cautioned, "Further controlled studies with larger numbers of MDD subjects and normal age- and gender-matched controls are necessary before any definitive conclusions can be made from these findings." (p. 643)

In a comprehensive review, Soares pointed out, "Even though preliminary findings from cross-sectional studies indicate anatomical, neurochemical, and functional brain abnormalities in bipolar

patients in key regions involved in mood regulation, the relationship of such abnormalities with illness phase and their clinical relevance needs further investigation. The potential for utilization of brain-imaging tools to elucidate the pathophysiology of bipolar disorder is still largely unrealized, and it is anticipated that important new developments in this area will come about over the next years and beyond" (Soares, 2003). Another reviewer concluded, "Although it is not yet a clinical tool for bipolar disorders, brain imaging provides useful research data to understand the fundamental neurobiology of mood disorders and to more effectively target therapeutics." (Ketter et al., 2002)

Obsessive Compulsive Disorder. Obsessive compulsive disorder has been studied extensively with imaging and has shown the most consistent findings so far, with the orbitofrontal cortex and the caudate nucleus being implicated in PET studies (Santosh, 2000). PET indices of brain activity within the orbitofrontal cortex are inversely correlated with subsequent response to SSRIs (Rauch et al., 2002). Most studies have involved adults. There are reports of SPECT studies of this condition in the literature, some of which included adolescents, but these are mostly older studies. There is one case report of SPECT and an adolescent with OCD who showed changes after being treated with clomipramine (Amen & Waugh, 1997).

Posttraumatic Stress Disorder (PTSD). PET, SPECT and functional MRI have been used to study how individuals with PTSD respond when they are presented with trauma-related stimuli. A pattern of hyperresponsivity of the amygdala and anterior paralimbic structures (which are known to be involved in processing negative emotions such as fear), greater deactivation of Broca's region (motor speech) and other nonlimbic cortical regions, and failure of activation of the cingulate cortex (which possibly plays an inhibitory role) has been found (Pitman, Shin, & Rauch, 2001). There are no studies of children and adolescents with PTSD using SPECT.

Schizophrenia. The current understanding of schizophrenia as a neurodevelopment disorder is largely due to brain imaging studies (Batista et al., 1995; Eliez & Reiss, 2000; Hendren, De Backer, & Pandina, 2000).

SPECT has helped to elucidate the neurobiology of schizophrenia via the study of cerebral blood flow and neuroreceptors in this condition. There is converging evidence implicating three brain systems: frontal, temporolimbic, and basal ganglia (Gur & Pearlson, 1993). PET and SPECT have revealed disturbances of cerebral blood flow and glucose metabolism in patients with schizophrenia. These tools have also proved useful in studying the relative receptor occupancy of typical and atypical antipsychotic medications. (McClure, Keshavan, & Pettegrew, 1998). There are several studies of first break schizophrenics using SPECT and these usually include older adolescents, but no such studies of children.

Provisional nature of findings

Despite the excitement neuroimaging has brought to the field of psychiatry, it remains an investigational tool. The hope is that the continued growth of knowledge will eventually have practical

applications in guiding psychological and pharmacologic treatments, but the general consensus is that SPECT and other kinds of neuroimaging are not yet recommended for diagnostic evaluation and treatment monitoring in individual patients.

Additional concerns are relevant to the use of neuroimaging in children and adolescents with psychiatric disorders. To date, the overwhelming preponderance of studies have been in adults. PET and SPECT involve exposure to radioactive agents, and MRI and fMRI involve sedation. The long-term effects of exposure of the immature brain to radiation are unknown. Concerns about the investigational uses of brain imaging for children revolve around the unclear risk-benefit ratio of such studies, as well as the difficulties involved in informed consent or assent with regard to a complex technology (Hinton, 2002). In a ten-year review published in the *Journal of the American Academy of Child and Adolescent Psychiatry* in 2000, Hendren and colleagues concluded, citing inconsistencies in data, "Although neuroimaging technology holds great promise for neurodevelopmental research, it is not yet a diagnostic instrument." (Hendren et al., 2000) This opinion was echoed by Santosh, another review author, who states, "As yet, no specific and consistent abnormality has been detected in childhood psychiatric disorders." (Santosh, 2000) Even with the continued advances in the understanding of brain structure and function in psychiatric disorders since these reviews, brain imaging has still not progressed to the point of being useful for the clinical diagnosis of these disorders in individual patients. As of this writing, no studies have been published in journals indexed by the National Library of Medicine examining the predictive ability of neuroimaging for psychiatric disorders for either adults or children.

Some of the problems still to be resolved are the following:

- Findings have been inconsistent. Most studies have involved small numbers of patients, and children and adolescents have been even less well studied than adults. The studies have great discrepancies related to sample size, subject selection, imaging protocol and image analysis. Methodological differences among studies may further confound the results.
- There are few normative data sets on children (Hinton, 2002). Without normative data, interpretation of findings on individual patients is meaningless. In part this lack is due to ethical constraints on using brain imaging to study normal children.
- Some disorders may involve subtle changes in structure and/or function that are not apparent on brain imaging studies.
- The changes observed may not accurately reflect underlying neurobiological dysfunction in the brain structures being studied, but could be compensatory mechanisms reflecting adaptation to deficits in other aspects of brain function.
- Ethical dilemmas exist with regard to exposure of children to radiation when it is not useful to guide treatment.
- There are potential iatrogenic problems in labeling a child as psychiatrically disordered, or as free of psychiatric disorder, on the basis of data derived from neuroimaging studies, given the lack of data regarding the sensitivity and specificity of such information.

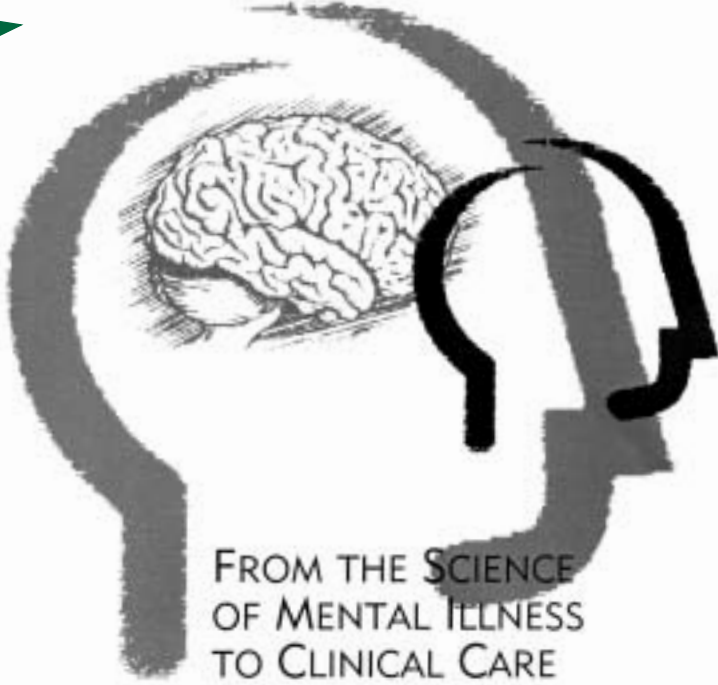
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NIMH RESEARCH TRACK

HIGHLIGHTS
pages 14-18



American Psychiatric Association
158th Annual Meeting

A Collaboration of the
National Institute of Mental Health
National Institutes of Health
and the
American Psychiatric Association

Atlanta, Georgia
May 21-26, 2005



LECTURES

❖ **Eric R. Kandel, M.D.*****Human Psychiatric Disorders: Genetic Models in Mice***

Distinguished Psychiatrist Lecture

Monday, May 23, 9:00 – 10:30 a.m.

Sydney B. Marcus Auditorium

Level 4, Georgia World Congress Center

This lecture will elaborate Dr. Kandel's evolving view that understanding the biological processes of learning and memory at multiple levels of organization can illuminate our understanding of human behavior, of psychiatric disorders, and of pharmacological and psychotherapeutic treatments.

❖ **Bruce S. McEwen, Ph.D.*****Stress and the Mind-Body Connection:******Lessons from Neuroendocrinology***

Frontiers of Science Lecture

Monday, May 23, 11:00 a.m. – 12:30 p.m.

Sydney B. Marcus Auditorium

Level 4, Georgia World Congress Center

Stress is a condition of the mind and a factor in the expression of disease that involves not just major life events but also the hassles of daily life that elevate activities of physiological systems so as to cause wear and tear. This lecture will present a new model describing the adaptive and damaging effects of mediators of the physiological stress response throughout the body. The model focuses on the pivotal role of brain areas involved in memory and emotion and provides a basis for understanding how mental disorders are often co-present with systemic disorders such as cardiovascular disease, obesity and diabetes. The role of the hippocampus, amygdala and prefrontal cortex in mood and anxiety disorders will be considered.

❖ **Michael J. Meaney, Ph.D.*****Epigenetic Programming of Stress Responses Through Variations in Maternal Care: The Nurture of Nature***

Frontiers of Science Lecture

Monday, May 23, 2:00 – 3:30 p.m.

Room A411, Level 4, Georgia World Congress Center

Maternal care alters the development of emotional, cognitive, and endocrine responses to stress in the rat. The mechanisms for these effects include changes in the expression of genes in brain regions that regulate central corticotrophin-releasing factor (CRF) synthesis and release from hypothalamic and amygdaloid nuclei. This lecture will focus on the effects that maternal care in early life has

on gene expression over the lifespan. The mechanisms for epigenetic effects will be described and related to individual differences in vulnerability and resistance to pathology.

❖ **Robert Freedman, M.D.*****From Genes to Therapeutics:******New Approaches to Schizophrenia***

Distinguished Psychiatrist Lecture

Monday, May 23, 9:00 – 10:30 a.m.

Sydney B. Marcus Auditorium

Level 4, Georgia World Congress Center

New findings in molecular biology and neurobiology are being rapidly translated into new directions for the clinical therapeutics of schizophrenia. An example of this approach is the development of nicotinic agonists for the treatment of cognitive dysfunction in schizophrenia. The lecture will review the basic neurobiology of inhibitory mechanisms involved in the response of the brain to sensory stimuli and correlated genetic studies that have identified molecular abnormalities in the gene for alpha 7 nicotinic receptors. Translation of basic science information has enabled identification of physiological abnormalities in persons with schizophrenia that are related to deficits in alpha 7 nicotinic receptors.

❖ **Thomas R. Insel, M.D.*****Psychiatry in the Genomic Era***

APA Judd Marmor Award Lecture

Tuesday, May 24, 11:00 a.m. – 12:30 p.m.

Sydney B. Marcus Auditorium

Level 4, Georgia World Congress Center

By any measure, the past two decades have revolutionized our understanding of the human genome and of brain function, two areas of science that are fundamental to psychiatry. In the next decade, we can expect equally revolutionary changes in the practice of psychiatry. This lecture will suggest three areas where psychiatry may be transformed in the future; each will require shifts in psychiatric training and psychiatric research.

❖ **Daniel R. Weinberger, M.D.*****Genes, Cognition, and Emotion***

Frontiers of Science Lecture

Tuesday, May 24, 2:00 – 3:30 p.m.

Sydney B. Marcus Auditorium

Level 4, Georgia World Congress Center

The challenge for the next generation of gene discovery in psychiatry will be characterizing at the level of brain systems the impact of susceptibility genes on brain development and function. This lecture will explore the emerging story based on studies in living subjects of the effects of

three genes related to variation in normal human temperament and risk for psychiatric disorders. Exploration of COMT, SERT and BDNF will offer lessons in how genes inform us about the underlying biology of mental disorders. Circuitry and predicts almost 30 percent of normal variation in anxious temperament. BDNF effects plasticity of limbic and prefrontal cortical regions.

❖ **Laura W. Roberts, M.D.**
*Inspiring Ethics: Ethical Milestones
and Preparation in Psychiatric Education*

Distinguished Psychiatrist Lecture
Thursday, May 26, 9:00 – 10:30 a.m.
Room A411, Level 4, Georgia World Congress Center

“Ethics” has become an uncomfortable word in psychiatry, with many negative associations. This lecture will offer a systematic approach to ethical decision making in clinical and research settings, an approach that is informed by conceptual and empirically-derived knowledge. Key findings from the exciting new discipline of *evidence-based ethics* will be highlighted, and effective approaches to working with ethics issues in teaching, in clinical care, in research, and in administration will be illustrated. ■

FORUM

❖ **Research Planning for DSM-V**
Monday, May 23, 12 noon – 1:30 p.m.
Room A410, Georgia World Congress Center

Chair: Darrel A. Regier, M.D., M.P.H.
Participants: Michael B. First, M.D.
Wilson M. Compton III, M.D.
Bruce Cuthbert, Ph.D.
William E. Narrow, M.D.
Maritza Rubio-Stipec, Sc.D.
Norman Sartorius, M.D.

A major goal for the next edition of the *DSM* has been to take advantage of the multidisciplinary research advances since publication of *DSM-IV*. APA has thus devoted an extended period of time for research planning in advance of *DSM-V*. This Forum will provide an overview of the planning process and a summary of these efforts to date.

Issue Workshops

Issue Workshops deal with topics of special interest to psychiatry. Presentations may concern innovative or controversial topics, and may be comprised of multiple, brief presentations or a smaller number of longer presentations.

❖ **Managing Distress and Psychiatric Disorder After Terrorism**

Monday, May 23, 9:00 – 10:30 a.m.

Co-chairs: Farris Tuma, Sc.D.
Anthony T. Ng, M.D.

Participants: Matthew Friedman, M.D.
Sandro Galea, M.D.
Carol S. North, M.D.
Robert J. Ursano, M.D.

Georgia World Congress Center, Room B403, Level 4

❖ **Research Training and Career Development: NIMH Opportunities**

Monday, May 23, 11:00 a.m. – 12:30 p.m.

Co-chairs: Della M. Hann, Ph.D.
Joseph R. Calabrese, M.D.

Participants: Mark Chavez, Ph.D.
Omar Elhaj, M.D.
Robert L. Findling, M.D.

Omni Hotel, Atrium Terrace Level, Maple Room, South Tower

❖ **Psychiatric Comorbidities in HIV Infection**

Tuesday, May 24, 11:00 a.m. – 12:30 p.m.

Chair: David Stoff, Ph.D.

Participants: Larry K. Brown, M.D.
Francine Cournos, M.D.
Marshall Forstein, M.D.
Stanley Rosenberg, Ph.D.
Ezra S. Susser, M.D.

Georgia World Congress Center, Room B401, Level 4

❖ **The Reach of Mental Illness Stigma**

Wednesday, May 25, 9:00 – 10:30 a.m.

Chair: Bernice A. Pescosolido, Ph.D.

Participants: Patrick W. Corrigan, Psy.D.
Jo C. Phelan, Ph.D.

Cathy Sherbourne, Ph.D.

Omni Hotel, Dogwood B, North Tower, Street Level

❖ **Adherence in Schizophrenia: Role of Attitude, Family, and Environment**

Thursday, May 26, 9:00 – 10:30 a.m.

Chair: Timothy Cuerdon, Ph.D.

Participants: Alex J. Kopelowicz, M.D.
Dawn I. Velligan, Ph.D.
Peter J. Weiden, M.D.

Georgia World Congress Center, Room B314, Level 3

❖ **Developing Targeted Interventions for Autistic Spectrum Disorders**

Thursday, May 26, 9:00 – 10:30 a.m.

Chair: Ann Wagner, Ph.D.

Participants: Connie Kasari, Ph.D.
Christopher J. McDougle, M.D.
Nancy Minschew, M.D.
Robert R. Schultz, Ph.D.

Georgia World Congress Center, Room B316, Level 3 ■

SYMPOSIA

The symposium format at the APA Annual Meeting features a formal three-hour session focused on a specific scientific or clinically relevant topic in psychiatry. There are generally three to five presented papers, a discussant, and a chair or co-chairs. All symposia are held from 2:00 – 5:00 p.m.; day and room are indicated for each session. Sessions held in the Georgia World Congress Center listed as GWCC.

❖ **Advances in Psychosomatic Medicine**

Presidential Symposium 1

Monday, May 23, GWCC, Room A305

Chair: Michelle B. Riba, M.D.

Discussant: Philip R. Muskin, M.D.

Papers:

A Model for Psychosomatic Medicine: Care in a U.S. Cancer Center

Michelle B. Riba, M.D.
University of Michigan

Ethical Issues in Psychosomatics

George Christodoulou, M.D.
Hellenic Psychiatric Association

Recent Advances in Depression and Cardiovascular Disease Research

Constantine Lyketsos, M.D.
Johns Hopkins University

Suffering: Another Frontier in Psychosomatic Medicine

Tom Sensky, M.B.
Imperial College London

❖ **Addressing Hepatitis C and Related Diseases in Persons With Severe Mental Illness**

Presidential Symposium 2

Monday, May 23, GWCC, Room B401

Chair: Marvin S. Swartz, M.D.

Discussant: Lisa B. Dixon, M.D.

Papers:

Hepatitis C and Other Blood-Borne Infections in the Severely Mentally Ill

Stanley Rosenberg, Ph.D.
Dartmouth Medical Center

Access to Medical Care for Persons With Severe Mental Illness, Hepatitis C and Related Disorders

Marvin S. Swartz, M.D.
Duke University

Gender Differences in HCV and Associated Risks With Severe Mental Illness

Marian I. Butterfield, M.D.
VA Medical Center, Durham, NC

A Public Approach to Blood-Borne Infection With Severe Mental Illness: STIRR Intervention

Mary F. Brunette, M.D.
Dartmouth College

Antiviral Treatment of Hepatitis C In Persons With Severe Mental Illness

Lisa A. Mistler, M.D.
Dartmouth College

Integrating Care for Persons With Severe Mental Illness

Lisa B. Dixon, M.D.
University of Maryland

❖ **Research Advances in Late-Life Mental Disorders: Toward DSM-V**

Monday, May 23, GWCC, Room A407

Chair: Dilip V. Jeste, M.D.

Discussants: Barry D. Lebowitz, Ph.D., Darrel Regier, M.D., M.P.H.

Papers:

Age-Related Diagnostic Variations:

Presentations, Course, and Outcome

Dilip V. Jeste, M.D., University of California, SD
Dan G. Blazer II, M.D., Duke University

Use of Biomarkers in the Elderly:

Current and Future Challenges

Raquel E. Gur, M.D., University of Pennsylvania
Steven E. Arnold, M.D., University of Pennsylvania
Trey Sunderland, M.D., National Institute of Mental Health

Biology and Pathophysiology:

Psychosocial and Behavioral Correlates

Charles F. Reynolds III, M.D., University of Pittsburgh
Patricia A. Arean, Ph.D., University of California, SF

Comorbidity: Medical and CNS Factors in Late-Life Disorders

Susan K. Schultz, M.D., University of Iowa
George S. Alexopoulos, M.D., Cornell-Weill Medical College

Linda K. Ganzini, M.D., VA Medical Center, Portland, OR

Ira R. Katz, M.D., University of Pennsylvania

Barry D. Lebowitz, Ph.D., University of California, SD

❖ **Clinical Advances in Early Detection, Prevention, and Treatment of Psychosis**

Monday, May 23, GWCC, Room A410

Co-Chairs: Robert K. Heinsen, Ph.D., Thomas H. McGlashan, M.D.

Discussant: Crystal R. Blyler, Ph.D.

Papers:

Accurate Prediction of At-Risk Patients

Diana O. Perkins, M.D.
University of North Carolina

Family Intervention in the Prodrome of Psychosis

William R. McFarlane, M.D., Maine Medical Center
William L. Cook, Ph.D.

**Pharmacological Intervention
During the Prodromal Phase**

Scott W. Woods, M.D.
Yale University

**Nonadherence: A Major Risk Factor for Psychosis
In Prodromal Adolescents**

Barbara A. Cornblatt, Ph.D., Zucker Hillside Hospital
Christopher Smith, M.A.; Andrea Auther, Ph.D.; Todd
Lencz, Ph.D.; Christoph Currell, M.D.; Ruth Olsen, B.S.;
Emilile Nakayana, Ph.D.

Reducing Duration of Untreated First-Episode Psychosis

Thomas H. McGlashan, M.D., Yale University
Ingrid Melle, M.D.; Svein Friis, M.D.; Tor K. Larsen,
M.D.; Jan O. Johannessen, M.D.; Ulrik Haahr, M.D.;
Per Vaglum, M.D.

❖ **Clinical Effectiveness Trials in the Real World:
Status and Findings of the NIMH Treatment Trials**

Monday, May 23, GWCC, Room B307

Chair: Grayson S. Norquist, M.D.

Papers:

**Current Status and Controversies in Antipsychotic Drug
Effectiveness: From the CATIE Studies**

Jeffrey A. Lieberman, M.D.
Columbia University

**Treatment for Adolescents With Depression Study
(TADS)**

John S. March, M.D.
Duke University

An Update on the STAR*D Trial

John A. Rush, M.D., University of Texas
Madhukar H. Trivedi, M.D., University of Texas
Stephen R. Wisniewski, Ph.D., University of Pittsburgh
Maurizio Fava, M.D., Massachusetts General Hospital

**Treatment of Bipolar Depression: Effectiveness of Anti-
depressants' Observational Outcomes in STEP-BD**

Gary S. Sachs, M.D.
Massachusetts General Hospital

❖ **Research Update on Pediatric Bipolar Disorder**

Monday, May 23, Omni Hotel, Dogwood A, North Tower

Chair: Daniel P. Dickstein, M.D.

Papers:

Course and Outcome of Bipolar Youth

Boris Birmaher, M.D., University of Pittsburgh
Martin Retter, M.D.; Michael Strober, Ph.D.; David A.
Axelson, M.D.; Neal D. Ryan, M.D.; Henrietta L. Leonard,
M.D.; Mary K. Gill, R.N.; Sylvia Valeri, Ph.D.

**Prepubertal Mania: Diagnosis, Prognosis, Family, and
Molecular Genetics**

Barbara G. Geller, M.D.
Washington University

**Pharmacological Treatment Options for Children and
Adolescents With Bipolar Disorder**

Melissa P. DelBello, M.D.
University of Cincinnati

**Pediatric Bipolar Disorder and the Utility
of Cardinal Symptoms**

Janet Wozniak, M.D., Massachusetts General Hospital
Joseph Biederman, M.D., Massachusetts General Hospital
Anne Kwon, M.S.; Eric Milk, Ph.D.

Neurobiological Evidence of Pediatric Phenotypes

Daniel P. Dickstein, M.D., Loma Linda University
Brendan Rich, Ph.D.; Michael Milham, M.D.; Erin
McClure, Ph.D.; Daniel S. Pine, M.D.; Ellen Leibenluft,
M.D.

❖ **Neuroscience for the Psychiatrist, Part 1:
Neuroimaging from Genomics to Therapy**

Tuesday, May 24, GWCC, Room A302

Co-Chairs: Andreas Meyer-Lindenberg, M.D.,
Mayada Akil, M.D.

Papers:

Imaging Genomics in Psychiatry

Andreas Meyer-Lindenberg, M.D.
National Institute of Mental Health

fMRI: Basics and Beyond

Peter A. Bandettini, Ph.D.
National Institute of Mental Health

**Understanding Schizophrenia Using
Functional Brain Imaging**

Cameron Carter, M.D.
University of California, Davis

**Linking Imaging and Treatment Mechanisms
for Depression**

Helen S. Mayberg, M.D.
Emory University

❖ **Neuroscience for the Psychiatrist, Part 2**

Wednesday, May 25, GWCC, Room A410

Co-Chairs: Mayada Akil, M.D., David A. Lewis, M.D.

Papers:

**Strategies for Investigating the Genetics
of Psychiatric Disorders**

Margit Burmeister, Ph.D.
University of Michigan

**Transcriptome Profiling of Brain Tissue:
Implications for Schizophrenia Research**

Karoly Mirnics, M.D.
University of Pittsburgh

(continued on next page)

Gene Expression Abnormalities in Schizophrenia: What Do They Mean?
David A. Lewis, M.D.
University of Pittsburgh

From Phenotype to Genotype and Back: How to Put It All Together
Mayada Akil, M.D.
National Institute of Mental Health

❖ **Efficacy and Safety of SSRI Medications in Children and Adolescents**

Thursday, May 26, GWCC, Room A302
Chair: Susan E. Swedo, M.D.

Papers:

SSRI Risk and Benefits: Lessons From the TADS Study
John S. March, M.D.
Duke University

Searching for Moderators and Mediators of Treatment in Adolescent Depression
Benedetto Vitiello, M.D.
National Institute of Mental Health

Efficacy and Safety of SSRIs in OCD and Other Anxiety Disorders
John T. Walkup, M.D.
Johns Hopkins University

Antidepressants and Suicide-Related Events: An Analysis of Pediatric Trials
Thomas P. Laughren, M.D.
Food and Drug Administration, DHHS

❖ **Postpartum Mood Disorders**

Thursday, May 26, GWCC, Room B409

Chair: Catherine A. Roca, M.D.

Papers:

Reproductive Hormones and Postpartum Depression
Catherine A. Roca, M.D.
National Institute of Mental Health
David R. Rubinow, M.D.
National Institute of Mental Health

Uncovering the Nature of the Puerperal Trigger: Genetic Studies of Postpartum Mood Disorders
Ian R. Jones, M.R.C.
University of Wales

Bipolar Disorder and the Postpartum Period
Adele C. Viguera, M.D.
Massachusetts General Hospital
Lee S. Cohen, M.D.
Massachusetts General Hospital

Postpartum Mental Illness: Impact and Treatment
Zachary N. Stowe, M.D.
Emory University
Donald J. Newport, M.D.
Emory University
Kimberly A. Ragan, M.S.W.
Emory University ■

Continuing Medical Education (CME)

The APA designates this educational activity (the Annual Meeting scientific program, of which the NIMH Research Track is a part) for a maximum of 66 category 1 credits toward the AMA Physicians Recognition Award and for the CME requirement of the APA. CME sessions for the NIMH Research Track are open to all Annual Meeting registrants, except for the Master Educator Clinical Consultations, which are open to APA members only.

NIMH Planning Committee

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Director, NIMH

Richard K. Nakamura, Ph.D.
Deputy Director, NIMH

Wayne S. Fenton, M.D., Director
Adult Translational Research
And Treatment Development
Chair of Planning Committee

Ellen S. Stover, Ph.D., Director
AIDS, Health and Behavior Research
Co-Chair of Planning Committee

Mayada Akil, M.D.
Senior Advisor
Science Policy and Program Planning

Catherine A. Roca, M.D., Chief
Women's Mental Health Program



INSTITUTE FOR MENTAL HEALTH RESEARCH

Located in the beautiful southwest, Arizona's new Institute for Mental Health Research (IMHR) is the only state-wide mental-health research organization in the country. IMHR is dedicated to developing interdisciplinary teams of scientists and clinicians in a variety of disciplines in order to accelerate the advancement of mental health science and improve diagnosis and treatment of mental illness and other brain disorders.

IMHR has opportunities for mental-health research physician-scientists with demonstrated ability to work independently in basic or clinical research, leverage collegial opportunities in Arizona, and secure NIH or comparable funding.

The Institute works through collaborations with institutions having significant strength in biomedical and applied clinical research. These include Arizona's leading research and clinical facilities:

University of Arizona

Barrow Neurological Institute

Sun Health Research Institute

Arizona State University

Banner Health System

Translational Genomics Research Institute

These positions may be eligible for faculty appointment with the University of Arizona, Department of Psychiatry – tenure track. Competitive salary and benefits package.

Please respond by mail or e-mail to Alan J. Gelenberg, M.D., Professor and Head, Department of Psychiatry, University of Arizona: alang@email.arizona.edu; 1501 N. Campbell Avenue, P.O. Box 245002, Tucson, Arizona, 85724-5002.

News and Notes

ParentsMedGuide.org

"The APA and the AACAP have announced the launch of a new Web site (www.ParentsMedGuide.org), a resource center for parents of children with depression. The site's focal point is a fact sheet entitled "The Use of Medication in Treating Childhood and Adolescent Depression: Information for Patients and their Families." The site's launch coincides with increased concern among mental health experts that the FDA black box warning has led to a worrisome drop in antidepressant prescriptions across the country. The site also offers a PhysicianMedGuide for general practitioners and pediatricians, providing information on pediatric depression treatment alternatives and on the latest science. The public may also access the Physician Guide to help promote information sharing among specialists, general medicine, and parents.

Get out of line at the Annual Meeting

This year for the first time at the APA Annual Meeting, *get out of line and go online*, anywhere and at any time, to complete your annual meeting Evaluation Form and receive your Personalized Certificate of Attendance as well as certificate of CME credits earned. The Evaluation Form is now accessible online from your laptop, your hotel room, your home, anywhere, on your time, with no lines. All you need is your six-digit badge number; go online at www.psych.org/survey/am2005.cfm; complete the form; fill in your CME credits earned; view and print your certificate. Evaluation Forms for the NIMH Research Track sessions are also available.

New way to earn CME credits

The APA offers a new opportunity for psychiatrists to learn and to earn CME credit through the 2005 APA Annual Meeting **Online CME Library**. The Library provides a state of the art audio-visual program that offers a dynamic learning experience. Programs include cutting edge neuroscience and genetics as well as review of practical clinical studies that define the current evidence base for effective psychiatric practice. The Library includes numerous sessions from the APA Annual Meeting including award lectures as sessions from the NIMH Research Track. The Library is free to Annual Meeting attendees, and many sessions will be available free to APA members. The 2005 Annual Meeting link at the APA Web site will provide complete information.

PsychiatryOnline.com

American Psychiatric Publishing Inc. (APPI) has launched a powerful new Web site, www.PsychiatryOnline.com. The site features *DSM-IV-TR* and other titles from the *DSM* Library, APA Practice Guidelines, Textbook of Clinical Psychiatry, and top psychiatry journals including *The American Journal of Psychiatry* and *Psychiatric Services*. But it's much more than books and journals presented online. The site features sophisticated searching and cross-referencing across books and journals, unlimited downloads to PDA, references that link to full text of journal articles at HighWire or abstracts at PubMed, and an interactive self-assessment tool. A full description is available in the February 18, 2005 of *Psychiatric News*, also available online.

Journal citations and abstracts via RSS

The American Journal of Psychiatry, *Psychiatric News*, and other journals published by APA and APPI now offer citations and abstracts for current and recent issues free of charge via *Really Simple Syndication (RSS)*. Essentially, RSS is a quick and easy way to gather news of articles published in APA and APPI journals with quick links back to the full text for subscribers.

Many journal readers have already signed up for eTOCs – automatic alerts sent by e-mail whenever a new journal issue goes online. RSS gives readers an even more powerful tool for organizing journal reading. Instead of having to visit many Web sites to access current journal issues or find separate eTOCs for each journal among hundreds of emails, RSS allows you to automatically gather new information on your topics of interest from different publications – journals, newspapers, magazines – and bring it together in one virtual location.

To make use of RSS, first install a software program called an RSS reader, or aggregator, which allows your computer to properly read the feeds. (See <http://blogspace.com/rss/readers>, for some choices that can be downloaded, some for free.) Then, go to <http://journals.psychiatryonline.org>. Click on a journal image, and then click on the "RSS" link to choose from the available feeds. Clicking the orange XML button should subscribe you to that feed (the RSS reader you choose will provide more specifics about how to use it to subscribe to feeds). Your RSS reader will automatically retrieve the feed each time it is updated. You can then scan titles and abstracts across many different publications – from a single location – to find articles of interest. Clicking the article title will link you directly to the full text if you are a subscriber to that journal.

Research Ethics Course

"Ethics in Mental Health Research: A Multi-Media, Train-the-Training Program" is a newly developed course to be offered in the spring and the fall, 2005. Participants have the option of taking the course either online or in a classroom setting. Distance-learning participants will attend classes through live Webcasting and teleconferencing. The nine-session program addresses ethical dilemmas faced by clinical investigators, by IRB members, and by participant advocates. The course complements the standard responsible conduct of research instruction that many institutions require of investigators before any type of research is conducted with human participants. Dates for the Fall 2005 course begin Wednesday, August 24, and continue every other Wednesday, from 11:00 a.m. – 1:00 p.m. (Central Time) concluding on Wednesday, December 14th. Registration fee is \$350. The course is a joint effort of the Missouri Institute of Mental Health and the Saint Louis University Center for Health Care Ethics, funded by the NIH. Detailed information is available at www.emhr.net. Online registration: www.mimh.edu/ceconfs.

ISPNE Conference at McGill

The International Society of Psychoneuroendocrinology will hold its 36th Annual Conference at McGill University in Montreal, September 24 – 27, 2005. This year's theme will be "Socioeconomic Status and Health: Psychoneuroendocrine Mediators." The influence of SES factors on risk for multiple forms of chronic illness during both early development and in adult life will be a focus of the meeting. This theme provides an opportunity to more fully explore traditional psychoneuroendocrinology topics in a broader social context. Symposia topics include the following: SES and heart disease; early adversity and cognitive development; gene x and environment interactions; allostatic load in children; neuroendocrine markers; intergenerational transmission of vulnerability; PNE mediators of co-morbidity; hippocampal volume and vulnerability. The deadline for submission of abstracts is June 1; early registration deadline is June 23, 2005. Michael Meaney, Ph.D., serves as this year's Program Chair. Complete information available at ispne-mtl.mcgill.ca.

Psychiatric Genomics Course

The Mayo Clinic College of Medicine, Rochester, Minnesota, will offer a course entitled *Psychiatric Genomics: Applications for Clinical Practice*, to be held August 1 – 5, 2005. 34 Category 1 CME credits are offered. The course is designed for individuals with an interest in understanding the ways in which genes not only affect mental illness, but impact disease course and prognosis. Pharmacogenomic principles that guide the treatment of psychiatric illness will be specifically highlighted. The broad array of lecture topics will: explain the importance of polymorphisms in psychiatric disease and in devising treatment strategies; identify genetic diseases where chromosomal aberrations correlate with abnormal behavior; explain uses of microarray technology in psychogenomic research; demonstrate how to interpret genetic test results and communicate findings to patients and families; discuss the ethical, legal, and social implications of psychiatric genomics. Faculty for the course will be led by David A. Mrazek, M.D.

Summer Institute in MH Research

The Johns Hopkins University Bloomberg School of Public Health offers a Summer Institute in Mental Health Research over a two-week period, July 5 – July 15, 2005. The Summer Institute focuses on methodologic and substantive topics of particular importance in mental health and substance use research. The Institute is intended for working professionals or students who are interested in acquiring a research background in either specific types of disorders or in the measurement and statistical issues that commonly arise when studying these disorders. The Program Director is William Eaton, Ph.D.; Program Coordinator is Adriane King (aking@jhsph.edu; 410-955-3908). Registration information is available online: www.jhsph.edu

2006 APA Annual Meeting

The 2006 APA Annual Meeting will be held in Toronto, Ontario, May 20 – May 25. "From Science to Public Policy" will be the Presidential Theme; online submissions for all formats will become active on April 29, 2005. ■



Psychiatric Research Report

On the Web

Past Issues in PDF format:

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If you would like to receive a free subscription to the *Psychiatric Research Report* please contact: prp@psych.org

Opportunities

■ **SPONSOR:** University of Vermont College of Medicine

■ **POSITION:** Faculty Position – Addiction Psychiatrist

DESCRIPTION: UVM College of Medicine seeks an Addiction Psychiatrist as full-time faculty at the assistant or associate professor level on a clinical, non-tenure track, to join a nationally recognized substance abuse research program. The psychiatrist selected will: serve as Medical Director of the first methadone treatment program in Vermont; develop empirically-based substance abuse treatment programs; strengthen training programs and teach medical students, residents, and other trainees in substance abuse treatment; participate in ongoing NIH-funded research and scholarly activities; have the opportunity to develop his/her own research agenda.

DEADLINE: Applications accepted until the position is filled.

CONTACT: Stacey C. Sigmon, Ph.D., Search Committee Chair, UVM Department of Psychiatry; 1 South Prospect St., Room 1415, Burlington, VT 05401; stacey.sigmon@uvm.edu

■ **SPONSOR:** University of Iowa

■ **POSITION:** Postdoctoral Fellowships in Clinical Neuroscience

DESCRIPTION: The Mental Health Clinical Research Center, University of Iowa, is accepting applications for a one- to three-year jointly funded NIMH/NIDA fellowship program for training in clinical neuroscience and the neurobiology of major psychotic disorders. Major areas of training activity include brain imaging (MRI, fMRI, and PET), biostatistics, cognitive neuroscience, neuroanatomy and neuropathology, neuropharmacology, and molecular genetics. The primary focus of the Clinical Research Center is on schizophrenia, related psychotic disorders, and addiction, but candidates with a primary interest in addiction research are particularly encouraged to apply. Applicants from under-represented groups and from all ethnic backgrounds are encouraged to apply. Web site: <http://iowamhrc.psychiatry.uiowa.edu>.

DEADLINE: Applications available now for positions beginning July 1, 2005.

CONTACT: For application write to Nancy C. Andreasen, M.D., Ph.D., director, MHCRC, 2911 JPP, 200 Hawkins Drive, Iowa City, IA, 52242-1057; 319-356-1545; or e-mail Vicki Foubert, vicki-foubert@uiowa.edu. The University of Iowa is an Equal Opportunity – Affirmative Action Employer.

■ **SPONSOR:** Columbia University

■ **POSITION:** Postdoctoral Research Fellowship in TMS

DESCRIPTION: Postdoctoral fellowship in the Department of Psychiatry available immediately at the Columbia University Brain Stimulation and Neuromodulation Division. The fellow will receive extensive hands-on training in repetitive transcranial magnetic stimulation (rTMS) and magnetic seizure therapy

(MST) in clinical and preclinical settings. The fellow will participate in a range of studies using TMS as a probe of brain function and as a putative treatment for psychiatric disorders such as depression, OCD, and schizophrenia. Candidate must have completed a U.S. residency in psychiatry or neurology.

DEADLINE: Open, ongoing recruitment

■ **POSITION:** Postdoctoral Research Scientist in TMS

DESCRIPTION: Postdoctoral Scientist position available in the Department of Psychiatry at the Columbia University Brain Stimulation and Neuromodulation Division. Responsibilities include conducting research studies utilizing transcranial magnetic stimulation (TMS) in combination with fMRI to probe the neural circuitry of cognitive processes, and participating in the design of novel magnetic coils for focal seizure induction (magnetic seizure therapy, MST). Ph.D. in electrical engineering required.

DEADLINE: Open, ongoing recruitment

CONTACT: For both positions, please send CV and list of references to Sarah H. Lisanby, M.D., Director, Brain Stimulation and Neuromodulation Division, Columbia University / New York State Psychiatric Institute, 1051 Riverside Drive, Unit 126, New York, NY 10032. Phone: (212) 543-5568, fax: (212) 543-6056, e-mail: SLISANBY@columbia.edu. Columbia University is an Affirmative Action/Equal Opportunity Employer.

■ **SPONSOR:** University of Colorado School of Medicine

■ **POSITION:** Postdoctoral Research Fellowship

DESCRIPTION: The Department of Psychiatry and the Developmental Psychobiology Research Group announce availability of several postdoctoral research training fellowships for those interested in academic research careers aimed at a neuroscientific understanding of complex behavioral and psychiatric disorders. Physician candidates, especially child psychiatrists, are encouraged to apply. The program includes a core curriculum with coursework to be completed by all trainees, and individual research in one or more faculty laboratories. Training emphasizes neuroscience research tools required to understand complex behavioral disorders: molecular, behavioral and psychiatric genetics, neuroimaging, cognitive and behavioral analyses. This is a one- to two-year program with flexible start dates. Home page: dprgpostdoc.org.

DEADLINE: December 31 of each year for the following summer, but applications considered throughout the year.

CONTACT: Martin Reite, M.D., Postdoctoral Training Program Director, Department of Psychiatry, University of Colorado Health Sciences Center; or, Linda Greco-Sanders, linda.greco-sanders@uchsc.edu.

■ **SPONSOR:** NARSAD

■ **AWARD:** Young Investigator Awards

DESCRIPTION: The National Alliance for Research on Schizophrenia and Depression (NARSAD) seeks applicants for the NARSAD Young Investigator Award. In 2004, 196 Young Investigator Awards were granted for scientific research into the causes, cures, treatments, and prevention of severe psychiatric brain disorders. Investigators supported by NARSAD awards must be working on basic and/or clinical applications related to schizophrenia, major affective disorders, or other serious mental illness including bipolar disorders, borderline disorders, and childhood disorders. The NARSAD Young Investigator Award Program provides support in the amount of \$30,000 per year for up to two years. The award offers promising investigators the opportunity to either extend research fellowship training or to begin careers as independent research faculty. NARSAD allows considerable flexibility in the use of funds. Young Investigators are eligible for a maximum of two Young Investigator Awards. Previous awardees at the postdoctoral or assistant professor level are encouraged to apply for a second award.

DEADLINE: Applications for the 2006 Young Investigator Award will be available June 1, 2005 and must be received by July 25, 2005.

CONTACT: NARSAD Research Grant Program, 60 Cutter Mill Road, Suite 404, Great Neck, NY 11021; 516-829-5576; grants@narsad.org. Application guidelines and fact sheet available at www.narsad.org.

■ **SPONSOR:** BPD Research Foundation

■ **FUNDING:** Quick Action Small Grant Program

DESCRIPTION: The Borderline Personality Disorder Research Foundation announces a Quick Action Small Grant Program to *facilitate development* of borderline personality disorder research grant applications to a NIH institute or other funding agency. The Foundation plans to make awards within a two-month review and funding cycle. Application proposals can be for any of the various research grant mechanisms, including research training or career development awards. This grant mechanism is not intended to support research studies in full or in part; examples of work eligible for support include: travel to learn a new procedure to be incorporated into a research application; conduct of secondary data analyses to support a NIH grant application; preliminary data collection to demonstrate subject compliance and to obtain pilot data; activities to demonstrate feasibility of identifying and recruiting potential subjects. Awards of up to \$5,000 will be made. Primary review criteria: accomplishments of the applicant; likelihood that the proposed work will contribute substantially to a research grant application; scientific merit of the potential grant application; and *evidence that Foundation funding will enable work not otherwise likely to occur in a timely manner.*

DEADLINES: Applications may be submitted at any time; the two-month review and funding cycles will begin on the first day of each month for applications received after the first day of the previous month.

CONTACT: Complete information can be found at borderlineresearch.org; questions must be sent by e-mail to Andrew E. Skodol, M.D., Co-chair, Scientific Advisory Board, aes4@columbia.edu. An original and two copies of completed

applications should be submitted to: Quick Action Small Grant Program, Borderline Personality Disorder Research Foundation, 650 Madison Avenue, 18th Floor, New York, NY 10022.

■ **SPONSOR:** American Psychiatric Association and APIRE

■ **AWARDS:** The APA and the American Psychiatric Institute for Research and Education administer a number of research training awards in concert with industry sponsors. Complete information on these awards can be accessed on the APA Web page by clicking on links to the *education* portion and the *research* portion of the site. Applicants may also contact Ernesto Guerra by phone (800-852-1390) or by e-mail (eguerra@psych.org). Titles and brief descriptions are given here.

APA/AstraZeneca Young Minds in Psychiatry Awards recognize and promote promising work from physicians who are not more than five years past residency training. Awards are made for research in Bipolar Disorder and in Schizophrenia: two awards will be made to U.S. physicians and two awards to physicians from outside the U.S. Each award is a \$45,000 unrestricted career development award. Application deadline is October 31.

APA/Kempf Award for Research Development in Psychobiological Psychiatry recognizes a senior researcher and a young research psychiatrist in a mentor-trainee relationship. The senior researcher is awarded \$1,500; the junior investigator is awarded \$20,000 payable to the institution for the support of the awardee's research career development. Application deadline, October 14.

APA/Lilly Psychiatric Research Fellowships are designed for physicians who have completed residency training, demonstrate significant research potential, *but have not had extensive research training.* October 14 for receipt of applications.

APA/Merck Early Academic Career for a junior faculty member with an interest in mood or anxiety disorders, in order to provide assistance in the transition to research independence. October 14 application deadline.

APA/GlaxoSmithKline Young Faculty Award for Research Development in Biological Psychiatry is intended to protect the research time of a junior faculty member working on the biology and psychopharmacology of mood disorders and – or – anxiety disorders. Applications due October 14.

Program for Minority Research Training in Psychiatry (PMRTP) is designed to encourage physicians, residents, and medical students from underrepresented minority groups to pursue psychiatric research. Application deadlines vary with level of trainee. Refer to Web site for additional information.

PMRTP Summer Training Award for Medical Students supports training opportunities during an elective period of three to four months or as a summer experience. Training takes place at a research-intensive departments of psychiatry.

APIRE/Janssen Resident Research Scholars are fellowships for PGY-1, PGY 2, and PGY-3 trainees focusing on clinical and health services research. Application deadline is January 15. ■



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