

The American Journal of **Psychiatry**

Official Journal of the American Psychiatric Association

Officers 2015-2016

President

Renée L. Binder, M.D.

President-Elect

Maria A. Oquendo, M.D.

Treasurer

Frank W. Brown, M.D.

Secretary

Altha J. Stewart, M.D.

Assembly

Speaker

Glenn A. Martin, M.D.

Speaker-Elect

Daniel J. Anzia, M.D.

Recorder

Theresa Miskimen, M.D.

Office of the CEO and Medical Director

CEO and Medical Director Saul Levin, M.D., M.P.A.

Board of Trustees

Jeffrey Akaka, M.D.

Lama Bazzi, M.D.

R. Scott Benson, M.D.

Ronald M. Burd, M.D.

Stella Cai, M.D.

Brian Crowley, M.D.

Anita S. Everett, M.D.

Jeffrey L. Geller, M.D., M.P.H.

Dilip V. Jeste, M.D.

Jeffrey A. Lieberman, M.D.

Vivian B. Pender, M.D.

Gail E. Robinson, M.D.

Ravi N. Shah, M.D.

Paul Summergrad, M.D.

Melinda Young, M.D.

Editorial Board

Editor

Robert Freedman, M.D.

Deputy Editors

David A. Lewis, M.D.

Robert Michels, M.D.

Daniel S. Pine, M.D.

A. John Rush, M.D.

Susan K. Schultz, M.D.

Carol A. Tamminga, M.D.

Associate Editors

Alan Brown, M.D., M.P.H.

Tyrone Cannon, Ph.D.

Benjamin G. Druss, M.D., M.P.H.

Graham J. Emslie, M.D.

Daniel C. Javitt, M.D.

Bankole Johnson, M.D.

Ellen Leibenluft, M.D.

Joan L. Luby, M.D.

Constantine G. Lyketsos, M.D., M.H.S.

Helen S. Mayberg, M.D., F.R.C.P.C.

Barbara Milrod, M.D.

Terrie E. Moffitt, Ph.D.

Anita Thapar, M.B.B.Ch., F.R.C.Psych.,

Ph.D., F.Med.Sci.

Mauricio Tohen, M.D., Dr.PH., M.B.A.

Eduard Vieta, M.D., Ph.D.

Katherine L. Wisner, M.D., M.S.

Xin Yu, M.D.

Editor Emerita

Nancy C. Andreasen, M.D., Ph.D.

Former Editors

Amariah Brigham, M.D., 1844–1849 T. Romeyn Beck, M.D., 1849–1854 John P. Gray, M.D., 1854–1886 G. Alder Blumer, M.D., 1886–1894 Richard Dewey, M.D., 1894–1897 Henry M. Hurd, M.D., 1897–1904 Edward N. Brush, M.D., 1904–1931 Clarence B. Farrar, M.D., 1931–1965 Francis J. Braceland, M.D., 1965–1978 John C. Nemiah, M.D., 1978–1993

Editorial Staff

Executive Editor

Michael D. Roy

Senior Editors

John J. Guardiano, Ph.D.

Jane Weaver

Production Manager

Susan Westrate

Assistant Editor

Angela Moore

Online Content Manager

Michael Pogachar

Editorial Support Services Manager

Heidi Koch

Editorial Assistant

Linda LaCour

Assistants to the Editors

Lois Lilienthal

Laura English

Rachel Hogg

Russell A. Scholl

Publisher

Rebecca D. Rinehart



The American Journal of Psychiatry

Residents[,] Journal Volume 10

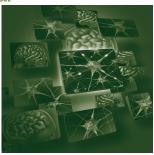
August 2015

Inside

Biological Psychiatry

- Traumatic Brain Injury and Juvenile Criminal Behavior Matthew E. Hirschtritt, M.D.,
- Neurobiology of
- Consciousness: Relevance and Application in Psychiatry umar Rakesh, M.D.
- 10 White Matter Dysfunction Central to Neurodevelopmo of Schizophrenia: A Review Emerging Literature Amy E. Curtis, M.D.
- 13 A Brief Introduction to Resting State Functional Connectivity Alecia Vogel-Hammen, M.D., Ph.D.
- 16 Optogenetic Applications in Psychiatric Research Julio M. Bernardi, M.D.
- 19 Brain on Fire: My Month of Madness Reviewed by Janet Charoen M.D.
- 20 Residents' Resources

IN THIS ISSUE



This issue of the Residents' Journal focuses on the topic of Biological Psychiatry. In an editorial, Adarsh S. Reddy, M.D., Ph.D., discusses the importance of unde standing the biological underpinnings of psychiatric illnesses. Matthew E. Hirsch-tritt, M.D., M.P.H., examines evidence for and against a causal mechanism link-ing traumatic brain injury (TBI) and criminality in youths, with discussion on the neurobiology of TBI. Gopalkumar Rakesh, M.D., investigates the neurobiology of consciousness and its relevance and application in psychiatry. Amy E. Curtis, M.D., presents a review of white matter dysfunction central to the neurodevelopment of presents a review of white matter dysfunction central to the neurodevelopment of schizophrenia. Alecia Vogel-Hammen, M.D., Ph.D., provides important informa-tion on resting state functional connectivity. Julio M. Bernardi, M.D., examines optogenetic applications in psychiatric research. Lastly, Janet Charoensook, M.D., presents a review of the book Brain on Fire: Month of Madness, about a rare neuro-immunological illness that manifested with prominent psychosis.

oseph M. Cerimele, M.D. Sarah M. Fayad, M.D. Monifa Seawell, M.D. isty Richards, M.D., M.S.

Editor-in-Chief

Rajiv Radhakrishnan, M.B.B.S., M.D.

Senior Deputy Editor Katherine Pier, M.D.

Deputy Editor

Hun Millard, M.D., M.A

Associate Editors Rafik Sidaros, M.B.B.Ch. Janet Charoensook, M.D.

The Residents' Journal accepts manuscripts authored by medical students, resident physicians, and fellows. To submit your paper, please visit the manuscript submission site at mc.manuscriptcentral.com/appi-ajp and either create an account or use your existing account. For manuscript type, select "Residents." Then follow the instructions to upload your manuscript. Residents who are interested in participating as Guest Section Editors should e-mail The Residents' Journal Editor-in-Chief Rajiv Radhakrishnan at rajiv.radhakrishnan@yale.edu.

The Residents' Journal is sent free-of-charge to all psychiatry residents. Anyone interested in being included on the distribution list should contact Angela Moore, The Residents' Journal staff editor at ajp@psych.org with "Subscribe to Residents' Journal" in the subject line.

THE AMERICAN PSYCHIATRIC ASSOCIATION

1000 Wilson Blvd., Suite 1825, Arlington, VA 22209-3901

(888) 357-7924 (toll-free inside the U.S. and Canada) / (703) 907-7300 web site: www.psychiatry.org • e-mail: apa@psych.org

Chairpersons of Councils, Committees, and Task Forces

Standing Committees

Rebecca W. Brendel, M.D., J.D. **Bvlaws Elections** Barry K. Herman, M.D. **Ethics** Ezra Griffith, M.D. **Finance and Budget** Alan F. Schatzberg, M.D. Audit Frank W. Brown, M.D. Investment Oversight David Fassler, M.D. Joint Reference Maria A. Oquendo, M.D. Membership Rahn K. Bailey, M.D. Nominating Paul Summergrad, M.D. Tellers Catherine May, M.D.

Councils

Council on Addiction Psychiatry

Frances R. Levin, M.D.

Council on Advocacy and Government Relations

Barry B. Perlman, M.D.

Advocacy and Litigation Funding

Jeffrey Akaka, M.D.

Caucus of State Hospital Psychiatrists

Caucus of VA Psychiatrists

Council on Children, Adolescents, and Their Families

Joseph V. Penn, M.D.

Agnes Purcell McGavin Award

Robert Lee Hendren, M.D.

Blanche F. Ittleson Research Award

Caucus of Psychiatrists Treating Persons With

Intellectual Disabilities

Michael Houston, M.D.

College Mental Health Caucus

Council on Communications

Arshya Vahabzadeh, M.D.

Council on Geriatric Psychiatry

Robert P. Roca, M.D.

Council on Healthcare Systems and Financing

Harsh K. Trivedi, M.D.

Reimbursement for Psychiatric Care

Bruce J. Schwartz, M.D.

RBRVS, Codes and Reimbursement

Gregory G. Harris, M.D.

Council on International Psychiatry

Michelle Riba, M.D.

Caucus on Global Mental Health and Psychiatry

Council on Medical Education and Lifelong Learning

Richard F. Summers, M.D.

APA Public Psychiatry Fellowship Selection Committee

Derri Shtasel, M.D

APA/SAMHSA Minority Fellowship Selection and Advisory

Roberto Lewis-Fernandez, M.D.

Caucus on MOC Issues

Caucus of Resident-Fellow Members

Scientific Program Steven Koh, M.D.

Scientific Program Committee of the Institute on

Psychiatric Services
Mary E. Diamond, M.D.

Subcommittee on Joint Sponsorship of Continuing

Medical Education (CME)
Vestermark Award Committee
Jonathan F. Borus, M.D.

Council on Minority Mental Health and Health Disparities

Christina V. Mangurian, M.D.

Caucus of Rural Psychiatrists

Caucus on Religion, Spirituality and Psychiatry

Council on Psychiatry And Law

Steven K. Hoge, M.D.

Caucus of Correctional Psychiatrists

Isaac Ray/Human Rights Award

Liza Hannah Gold, M.D.

Judicial Action

Marvin Stanley, M.D.

Manfred S. Guttmacher Award

David A. Lowenthal, M.D.

Council on Psychosomatic Medicine (Consultation Liaison Psychiatry)

David F. Gitlin, M.D.

Council on Quality Care

Grayson Norquist, M.D.

Mental Health Information Technology

Steven Roy Daviss, M.D.

Steering Committee on Practice Guidelines

Michael J. Vergare, M.D.

Council on Research

Dwight L. Evans, M.D.

Caucus of Psychiatrists Treating Persons with Eating Disorders

Caucus on Alternative and Complementary Medicine

Psychiatric Dimensions of Disasters

Robert J. Ursano, M.D.

Research Awards

Matthew W. State, M.D.

Task Force to Revise the Practice of Electroconvulsive Therapy

There's So Much More to AJP Than Meets the Page!

Visit The American Journal of Psychiatry's website on PsychiatryOnline for the following features!



AIP in Advance _____

The very latest research advances!

At **AJP in Advance**, you can discover the following before their appearance in print:

Is Adult ADHD a Childhood-Onset Neurodevelopmental Disorder? Evidence From a Four-Decade Longitudinal Cohort Study

Childhood and adult cases of ADHD showed almost no overlap in a population cohort followed for four decades. Neurocognitive impairments differed between age groups, and adult cases did not share the polygenic risk of child ADHD.

A Randomized, Double-Blind, Placebo-Controlled Trial of Citicoline for Cocaine Dependence in Bipolar I Disorder

Urine drug screens demonstrated that citicoline, a dietary supplement in the U.S., reduced cocaine use more than placebo when added to treatment for cocaine-dependent patients with bipolar I disorder. Citicoline's advantage appeared quickly but declined over 12 weeks.



AIP CME

Three articles in this issue form the basis of a short course with questions that can be answered for up to 1 *AMA PRA Category 1 Credit™* each by visiting **http:/psychiatryonline.org/cme** and clicking on the "**American Journal of Psychiatry**" tab. CME credit is issued only **online**, and a paid subscription to AJP CME course program is required. This month's courses appear on pages 925–928.



Have You Heard? _

With AJP Audio you can listen to highlights of this issue. This month, Deputy Editor Susan K. Schultz, M.D., discusses differential diagnosis of frontotemporal dementia, autoimmune encephalitis in postpartum psychosis, the role of oxytocin in borderline personality disorder, neural correlates of error processing in young people exposed to severe childhood abuse, light therapy versus cognitive-behavioral therapy for seasonal affective disorder, and cognitive enhancement treatment for people with mental illness who do not respond to supported employment.

Also, visit the online edition of this month's Journal to view a video of Deputy Editor Daniel S. Pine, M.D., presenting highlights from the issue.



Revisit the field's rich history! _____

75 years ago this month: "Psychometric Performance of Children Receiving Amphetamine (Benzedrine) Sulfate"

The authors found no signficant differences in performance on intelligence and psychomotor testing in children assessed after a dose of amphetamine and again without amphetamine. Given that their sample was well accustomed to psychometric testing, and in light of findings from previous studies, the authors conclude that "when [intellectual] performance is improved following the administration of the drug, the result is accomplished primarily by an improved emotional attitude of the subject toward his intellectual task."



ajp.psychiatryonline.org

WWW.SHANGHAIARCHIVESOFPSYCHIATRY.ORG

JUNE 2015 • VOL. 27 • NO. 3

IN THIS ISSUE

http://dx.doi.org/10.11919/j.issn.1002-0829.215069

COMMENTARIES

Bridging the gap between research into biological and psychosocial models of psychosis

Robin M MURRAY, Lucia SIDELI, Caterina LA CASCIA, Daniele LA BARBERA

http://dx.doi.org/10.11919/j.issn.1002-0829.215067

Addressing risk of bias in trials of cognitive behavioral therapy

Katherine S. BUTTON, Marcus R. MUNAFÒ http://dx.doi.org/10.11919/j.issn.1002-0829.215042

SYSTEMATIC REVIEW AND META-ANALYSIS

Metacognitive training for schizophrenia: a systematic review

Jiangling JIANG, Li ZHANG, Zhipei ZHU, Wei Ll, Chunbo Ll http://dx.doi.org/10.11919/j.issn.1002-0829.215065

ORIGINAL RESEARCH ARTICLES

Abnormal inter- and intra-hemispheric integration in male paranoid schizophrenia: a graph-theoretical analysis

Jianhuai CHEN, Zhijian YAO, Jiaolong QIN, Rui YAN, Lingling HUA, Qing LU

http://dx.doi.org/10.11919/j.issn.1002-0829.215036

Controlled trial of the effectiveness of community rehabilitation for patients with schizophrenia in Shanghai, China

Ying ZHOU, Rongshan ZHOU, Wenjie LI, Yiqiang LIN, Jian YAO, Jian CHEN, Tao SHEN

http://dx.doi.org/10.11919/j.issn.1002-0829.215026

Comparisons of family environment between homeless and non-homeless individuals with schizophrenia in Xiangtan, Hunan

Jinliang CHEN, Jindong CHEN, Shuchun LI, Jun LIU, Guohua OUYANG, Wenxuan LUO, Xiaofeng GUO, Ting LI, Kaijie LI, Zhenkuo LI, Gan WANG

CASE REPORT

http://dx.doi.org/10.11919/j.issn.1002-0829.214162

Oligodendroglioma presenting as chronic mania Rahul SAHA, Kiran JAKHAR

http://dx.doi.org/10.11919/j.issn.1002-0829.215039

RESEARCH METHODS IN PSYCHIATRY

Development of a checklist of short-term and long-term psychological symptoms associated with ketamine use

Ni FAN, Ke XU, Yuping NING, Daping WANG, Xiaoyin KE, Yi DING, Bin SUN, Chao ZHOU, Xuefeng DENG, Robert ROSENHECK, Hongbo HE

http://dx.doi.org/10.11919/j.issn.1002-0829.214158

BIOSTATISTICS IN PSYCHIATRY (27)

Meta-analysis for psychiatric research using free software R

Ding-Geng CHEN

http://dx.doi.org/10.11919/j.issn.1002-0829.215063