

The ARCHIVES OF GENERAL PSYCHIATRY is a member of the consortium of AMA journals listed below. The complete text of all AMA journals is available online directly from AMA as well as the following aggregators: Dialog Information Services, Proquest, Ovid Technologies, Inc, Gale Research, and EBSCO.

**The Journal of the American Medical Association (JAMA)**

- Archives of Dermatology
- Archives of Facial Plastic Surgery
- Archives of General Psychiatry
- Archives of Internal Medicine
- Archives of Neurology
- Archives of Ophthalmology
- Archives of Otolaryngology—Head & Neck Surgery
- Archives of Pediatrics & Adolescent Medicine
- Archives of Surgery

The ARCHIVES OF GENERAL PSYCHIATRY (ISSN 0003-990x) is published monthly by the American Medical Association, 515 N State St, Chicago, IL 60610-0946, and is an official publication of the Association. The ARCHIVES OF GENERAL PSYCHIATRY reaches more than 31 000 readers in over 79 countries each month. Periodicals postage paid at Chicago, IL, and at additional mailing offices. GST registration number 12622 5556 RT. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 318633. Printed in the USA.

**SUBSCRIPTION RATES—**

	Individual Print & Online	Individual Online Only
US	\$195	\$150
Americas	\$250	\$150
Rest of World	£175	£105
	Institution Print & Online	Institution Online Only
US	\$365	\$275
Americas	\$475	\$275
Rest of World	£310	£195

Rates for residents and medical students available.

**CHANGE OF ADDRESS—**POSTMASTER, send all address changes to ARCHIVES OF GENERAL PSYCHIATRY, c/o Subscriber Services, American Medical Association, 515 N State St, Chicago, IL 60610. Please notify us of address change at least 6 weeks in advance to ensure uninterrupted service. Include both old and new addresses, a recent mailing label, and new ZIP code. For mailing addresses outside the United States and the Americas, see below.

**SUBSCRIPTION INFORMATION—**Subscription inquiries for mailing addresses in the US and the Americas: For fastest service, direct inquiries regarding missing issues, address changes, subscription billing, subscription renewal, or back issue purchases as shown below: **AMA members:** Phone: 800-262-3211 between 8:30 AM-4:45 PM CST; Fax: 800-262-3221; E-mail: [msc@ama-assn.org](mailto:msc@ama-assn.org). **Other physicians and nonphysician customers:** Phone: 800-262-2350 or 312-670-7827 (same hours as above); Fax: 312-464-5831; E-mail: [ama-subs@ama-assn.org](mailto:ama-subs@ama-assn.org). Mail inquiries should be directed to the Unified Service Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. For mailing addresses outside the US and the Americas: Contact JAMA and Archives Journals, American Medical Association, Tower House, Sovereign Park, Market Harborough, Leicestershire LE15 9EF, UK. Phone: +44 (0) 1858-438880; Fax: +44 (0) 1858-434958; E-mail: [ama@subscription.co.uk](mailto:ama@subscription.co.uk).

**REPRINTS—**Authors place their reprint order at the time the edited typescript is reviewed and should allow 4 to 6 weeks for delivery following publication. Requests for individual reprints should be sent directly to the author at the address shown in the article.

For bulk reprint orders for distribution by commercial organizations, please contact Wanda Bartolotta, 2441 84th St, Brooklyn, NY 11214. Phone: (718) 946-7424. Fax: (718) 946-7372. E-mail: [wanda\\_bartolotta@ama-assn.org](mailto:wanda_bartolotta@ama-assn.org). For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprints Coordinator, 515 N State St, Chicago, IL 60610. Phone: (312) 464-4594. Fax: (312) 464-4849.

**PERMISSIONS—**Contact Rhonda Bailey, Permissions Assistant, 515 N State St, Chicago, IL 60610. Phone: (312) 464-2513.

**ADVERTISING PRINCIPLES—**Each advertisement in this issue has been reviewed and complies with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.

**WORLD WIDE WEB ADDRESS—**<http://www.ama-assn.org>

**GENERAL PSYCHIATRY HOME PAGE—**<http://www.archgenpsychiatry.com>

**Publication Staff**  
Offices: 515 N State St, Chicago, IL 60610

**Editorial Processing Department**

**Department Director:** Paula Glitman

**Copyediting Manager:**  
Brenda Gregoline

**Freelance Copyediting Manager:**  
Diane L. Cannon

**Freelance Copyediting Coordinators:**  
Lauren B. Fischer  
Connie Manno

**Editorial Systems Managers:**  
Paul Frank  
Monica Mungle

**Systems Programmer/Internet Specialist:**  
J. D. Neff

**Senior Copy Editor:**

Vickey Golden

**Copy Editors:**

Juana N. Llorens  
Rachel Novickas  
Cheryl L. Tobey  
Rachel Bodzin Young

**Editorial Assistant:** Wanda Hill

**Circulation & Classified Advertising Division**

**Director:** Curt Reilly

**Circulation Processing**

**Director:** Karen Howes  
**Manager:** Alfred Tomaselli

**Circulation Development**

**Director:** Bina Oza Trivedi  
**Managers:**

Vida Damijonaitis  
Donna Goldman  
Michael McGraw

**Classified Advertising**

**Director:** Crystal Wells  
**Manager:** Thalia Moss, (800) 262-2260

**Scientific Publications & Multimedia Applications**

**Assistant to the Editor:** Helga Fritz

**Scientific Online Resources**

**Director:** Margaret Winker, MD

**Electronic Media Department Director:**  
Michelle Kurzynski

**Associate Web Editors:**  
Katherine Behar  
Erin M. Giannini

**Web Office Manager:** Marla A. Hall

**Advertising**

**National Sales Director:**

Peter J. Murphy

**Director, Advertising Sales:**

Peter G. Messina

**Advertising Office:**

J. P. Cahill & Associates  
341 S Waiola Avenue  
La Grange, IL 60525  
(708) 352-0322

**Publishing Manager:** Geoffrey A. Flick

**Licensing & Permissions Department**

**Director:** Norman Frankel, PhD

**Permissions:** Rhonda Bailey

**Publishing Operations Division**

**Division Director:** Vanessa Hayden

**Directors:** Karen Adams-Taylor,  
Paul Gasielcki

**Managers:** David Antos, Debbie Camp,  
Karl Elvin, Betty Frigerio,  
Mary Ellen Johnston, Susan Price,  
Charl Richey, Carmela Ware

**Production Associates and Specialists**

**Advertising and Production Services:**

LaWanda Brown, Susan Chiara,  
Mary Anne Donley, Brian McCartney,  
Sarah Powell, Denise Steinhauer,  
Ellen Yoshihara

**Composition:** Rebecca Aiken,  
Brenda Chandler-Grayer, Amy Evers,  
Fred Furtner, Mary Ann Kuranda,  
Sandra Lopez

**Database & New Media:**

Bruce McGregor (indexer),  
Clifford O. Barrett, Gail Barrett,  
Regina Brownlee, Rowena F. Dagang,  
John Marcinek, La'son Diggs Sledge,  
Angela Smits

**Distribution:** Linda Alexander

**Graphics:** Joe Amft, Noel Chaparro,  
Carolyn Hall, Maria Kowalkowski,  
Chris Meyer, JoAnne Weiskopf

**Proofreading:** Carol Joy Farrell,  
Daniel James, Teresa H. Omitek,  
Mary Kay Tinerella,  
Barbara Wojtowicz,  
Agnes A. Zarkadas



# ARCHIVES

OF

## GENERAL PSYCHIATRY

MAY 2002

VOLUME 59, NUMBER 5

PAGES 397-488

### ORIGINAL ARTICLES

**Probing Brain Reward System Function in Major Depressive Disorder:** 409

**Altered Response to Dextroamphetamine**

Lescia K. Tremblay, BSc; Claudio A. Naranjo, MD; Laura Cardenas, MD; Nathan Herrmann, MD; Usoa E. Busto, PharmD

**Disruption of Neural Systems of Visual Attention in Schizophrenia** 418

Geoffrey F. Potts, PhD; Brian F. O'Donnell, PhD; Yoshio Hirayasu, MD, PhD; Robert W. McCarley, MD

**Common Changes in Cerebral Blood Flow in Patients With Social Phobia Treated With Citalopram or Cognitive-Behavioral Therapy** 425

Tomas Furmark, PhD; Maria Tillfors, PhD; Ina Marteinsdottir, MD; Håkan Fischer, PhD; Anna Pissioti, MSc; Bengt Långström, PhD; Mats Fredrikson, PhD, DMSc

**Personality Disorders and Time to Remission in Generalized Anxiety Disorder, Social Phobia, and Panic Disorder** 434

Ann O. Massion, MD; Ingrid R. Dyck, MPH; M. Tracie Shea, PhD; Katharine A. Phillips, MD; Meredith G. Warshaw, MSS, MA; Martin B. Keller, MD

**A Double-blind, Placebo-Controlled Dose-Response Comparison of Intramuscular Olanzapine and Haloperidol in the Treatment of Acute Agitation in Schizophrenia** 441

Alan Breier, MD; Karena Meehan, MB, MRCP, MRCPsych; Martin Birkett, BSc; Stacy David, PhD; Iris Ferchland, MSc; Virginia Sutton, PhD; Cindy C. Taylor, PhD; Rebecca Palmer, MS; Martin Dossenbach, MD; Geri Kiesler, RPh; Shlomo Brook, MD; Padraig Wright, MRCPsych, MD

**Evidence for Early-Childhood, Pan-Developmental Impairment Specific to Schizophreniform Disorder:** 449

**Results From a Longitudinal Birth Cohort**

Mary Cannon, MD, PhD; Avshalom Caspi, PhD; Terrie E. Moffitt, PhD; HonaLee Harrington, BS; Alan Taylor, MSc; Robin M. Murray, MD, DSc; Richie Poulton, PhD

**Minor Physical Anomalies and Quantitative Measures of the Head and Face in Patients With Psychosis** 458

John McGrath, MBBS, PhD, FRANZCP; Ossama El-Saadi, MD, MPH; Vivian Grim, MD; Sue Cardy, RPN; Ben Chapple, BA; David Chant, PhD; Daniel Lieberman, PhD; Bryan Mowry, MBBS, MD, FRANZCP

### LETTERS TO THE EDITOR

**Can Sublingual Testosterone Increase Subjective and Physiological Measures of Laboratory-Induced Sexual Arousal?** 465

Adriaan Tuiten, PhD; Jack van Honk, PhD; Rien Verbaten, PhD; Ellen Laan, PhD; Walter Everaerd, PhD; Henderikus Stam, PhD

**Is NMDA Receptor Hypofunction in Schizophrenia Associated With a Primary Hyperglutamatergic State?** 466

Sung S. Shim, MD, PhD; Adityanjee, MD

**In Reply** 467

John W. Olney, MD; John W. Newcomer, MD; Nuri B. Farber, MD

**JAMA**  
&  
**ARCHIVES**  
**JOURNALS**  
American Medical Association

All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the policy of the American Medical Association, the Editorial Board, or the institution with which the author is affiliated, unless this is clearly specified.

**Catherine D. DeAngelis, MD, MPH**  
Editor in Chief, Scientific Publications & Multimedia Applications

**Nawin Gupta, PhD**  
Group Publisher

**Cheryl Iverson**  
Managing Editor

**Michael D. Maves, MD, MBA**  
Executive Vice President,  
Chief Executive Officer

**Robert A. Musacchio, PhD**  
Senior Vice President,  
Publishing & Business Services

Copyright 2002 by the American Medical Association. All rights reserved.  
Reproduction without permission is prohibited.

**Disconnected Networks During Auditory Hallucinations and Dreams: A Topological Problem for Neuroimaging?** 468  
*Juan F. Gomez, BE*

**In Reply** 469  
*Sukhwinder S. Shergill, MRCPsych*

**Pharmacotherapy of Paraphilias With Luteinizing Hormone-Releasing Hormone Agonists** 469  
*Peer Briken, MD*

**In Reply** 470  
*Cindy M. Meston, PhD; Penny F. Frohlich, MA*

**Limitations of the Bonn Scale for the Assessment of Basic Symptoms as a Screening Measure** 470  
*Richard Warner, MB, DPM*

**In Reply** 471  
*J. Klosterkotter, MD*

**Antiobsessional Effect of Risperidone Add-On Treatment in Serotonin Reuptake Inhibitor-Refractory Obsessive-Compulsive Disorder May Be Dose-Dependent** 472  
*Rajamannar Ramasubbu, MD, FRCPC, MSc*

**In Reply** 472  
*Christopher J. McDougle, MD; Lawrence H. Price, MD*

**BOOK REVIEWS**

**Comprehensive Guide to Interpersonal Psychotherapy** 474  
*Myrna M. Weissman, MD; John C. Markowitz, MD; Gerald L. Klerman, MD*  
*Reviewed by A. John Rush, MD*

**Complex Adoption and Assisted Reproductive Technology** 475  
*Vivian B. Shapiro, PhD; Janet R. Shapiro, MSW, PhD; Isabel H. Paret, PhD*  
*Reviewed by Paulina F. Kernberg, MD*

**New Oxford Textbook of Psychiatry, vols 1 and 2** 476  
*Michael G. Gelder; Juan J. Lopez-Ibor, Jr, MD; Nancy C. Andreasen, MD, PhD (eds)*  
*Reviewed by Robert Michels, MD*

**Whither Child Psychiatry in the 21st Century?** 477

**Developmental Neuropsychiatry, vols 1 and 2** 470  
*James C. Harris, MD*

**Handbook of Developmental Psychopathology, 2nd ed** 471  
*Arnold J. Sameroff, PhD; Michael Lewis, PhD; Suzanne M. Miller, PhD (eds)*

**Developmental Science, vol 4, issue 3** 472  
*Mark H. Johnson (ed)*  
*Reviewed by Margaret E. Hertzog, MD; Theodore Shapiro, MD*

**REGULAR DEPARTMENTS**

**This Month in Archives of General Psychiatry** 407

**Corrections** 416, 440, 480

**Classified Advertising** 482

**Index to Advertisers** 488

**Instructions for Authors—**  
**See January 2002 issue, page 94, or visit the Web site at <http://www.archgenpsychiatry.com>**

**ARCHIVES**  
 OF  
**GENERAL PSYCHIATRY**

*Editor:*  
**Joseph T. Coyle, MD**  
 McLean Hospital  
 115 Mill St  
 Belmont, MA 02478  
 Phone: (617) 855-2101  
 Fax: (617) 855-2705

*Editorial Assistant:*  
**Frances MacNeil**  
 Belmont, Mass

*Editorial Board:*  
**Huda Akil, PhD**  
 Ann Arbor, Mich  
**Ross J. Baldessarini, MD**  
 Belmont, Mass  
**Floyd E. Bloom, MD**  
 La Jolla, Calif  
**Malcolm B. Bowers, Jr, MD**  
 New Haven, Conn  
**David L. Braff, MD**  
 San Diego, Calif  
**William T. Carpenter, Jr, MD**  
 Baltimore, Md  
**Raymond J. Dolan, MD**  
 London, England  
**Felton Earls, MD**  
 Cambridge, Mass  
**Glen R. Elliott, PhD, MD**  
 San Francisco, Calif  
**Ellen Frank, PhD**  
 Pittsburgh, Pa  
**Richard M. Glass, MD**  
 Chicago, Ill

**Frederick K. Goodwin, MD**  
 Bethesda, Md  
**Fritz A. Henn, PhD, MD**  
 Mannheim, Germany  
**Steven E. Hyman, MD**  
 Bethesda, Md  
**Kenneth S. Kendler, MD**  
 Richmond, Va  
**Kenneth K. Kidd, PhD**  
 New Haven, Conn  
**Donald F. Klein, MD**  
 New York, NY  
**Helena Chmura Kraemer, PhD**  
 Stanford, Calif  
**David J. Kupfer, MD**  
 Pittsburgh, Pa  
**Herbert Y. Meltzer, MD**  
 Nashville, Tenn  
**Grayson S. Norquist, MD**  
 Bethesda, Md  
**Charles P. O'Brien, MD, PhD**  
 Philadelphia, Pa  
**Michael Posner, PhD**  
 New York, NY

**Judith L. Rapoport, MD**  
 Bethesda, Md  
**Alan F. Schatzberg, MD**  
 Stanford, Calif  
**Goran Sedvall, MD**  
 Stockholm, Sweden  
**Gary L. Tischler, MD**  
 New York, NY  
**Ming T. Tsuang, MD, PhD**  
 Boston, Mass  
**Stanley J. Watson, Jr, PhD, MD**  
 Ann Arbor, Mich  
**Myrna M. Weissman, PhD**  
 New York, NY  
**Kenneth B. Wells, MD, MPH**  
 Los Angeles, Calif