

# KAPLAN & SADOCK'S COMPREHENSIVE TEXTBOOK OF PSYCHIATRY

TENTH EDITION



Benjamin James Sadock, M.D.  
Virginia Alcott Sadock, M.D.  
Pedro Ruiz, M.D.



Wolters Kluwer

VOLUME ONE

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**TENTH**



**EDITION**

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Benjamin James Sadock, M.D., is the Menas S. Gregory Professor of Psychiatry in the Department of Psychiatry at the New York University (NYU) School of Medicine. He is a graduate of Union College, received his M.D. degree from New York Medical College, and completed his internship at Albany Hospital. He completed his residency at Bellevue Psychiatric Hospital and then entered military service as Captain US Air force, where he served as Acting Chief of Neuropsychiatry at Sheppard Air Force Base in Texas. He has held faculty and teaching appointments at Southwestern Medical School and Parkland Hospital in Dallas and at New York Medical College, St. Luke's Hospital, the New York State Psychiatric Institute, and Metropolitan Hospital in New York City. Dr. Sadock joined the faculty of the NYU School of Medicine in 1980 and served in various positions: Director of Medical Student Education in Psychiatry, Co-Director of the Residency Training Program in Psychiatry, and Director of Graduate Medical Education. Currently, Dr. Sadock is Co-Director of Student Mental Health Services, Psychiatric Consultant to the Admissions Committee, and Co-Director of Continuing Education in Psychiatry at the NYU School of Medicine. He is on the staff of Bellevue Hospital and Tisch Hospital. Dr. Sadock is a Diplomate of the American Board of Psychiatry and Neurology and served as an Associate Examiner for the Board for more than a decade. He is a Distinguished Life Fellow of the American Psychiatric Association, a Fellow of the American College of Physicians, a Fellow of the New York Academy of Medicine, and a member of Alpha Omega Alpha Honor Society. He is active in numerous psychiatric organizations and was president and founder of the NYU-Bellevue Psychiatric Society. Dr. Sadock was a member of the National Committee in Continuing Education in Psychiatry of the American Psychiatric Association, served on the Ad Hoc Committee on Sex Therapy Clinics of the American Medical Association, was a Delegate to the Conference on Recertification of the American Board of Medical Specialists, and was a representative of the American Psychiatric Association Task Force on the National Board of Medical Examiners and the American Board of Psychiatry and Neurology. In 1985, he received the Academic Achievement Award from New York Medical College and was appointed Faculty Scholar at NYU School of Medicine in 2000. He is the author or editor of more than 100 publications (including 50 books), a reviewer for psychiatric journals, and lectures on a broad range of topics in general psychiatry. Dr. Sadock maintains a private practice for diagnostic consultations and psychiatric treatment. He has been married to Virginia Alcott Sadock, M.D., Professor of Psychiatry at NYU School of Medicine, since completing his residency. Dr. Sadock enjoys opera, golf, traveling, and is an enthusiastic fly fisherman.

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*American Journal on Addictions, Addictive Disorders and Their Treatment*, and *The Journal of Nervous and Mental Disease*. Dr. Ruiz has also received over 65 awards and honors and has published over 600 publications, including over 20 books. Dr. Ruiz has also delivered over 250 grand rounds and invited lectures, and has made over 500 worldwide scientific presentations. Dr. Ruiz and his wife Angela have two children: Pedro Pablo and Angela Maria, and four wonderful grandchildren: Francisco Antonio, Pedro Pablo Jr., Omar Joseph, III, and Pablo Antonio. Dr. Ruiz also enjoys reading literary novels, theater, traveling, and fishing.



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*43.5 Unspecified Communication Disorder*

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*60.4 Neuroimaging, Psychiatry, and the Law*

**Evelyn J. Bromet, Ph.D.** Distinguished Professor of Psychiatry and Preventive Medicine, Stony Brook University School of Medicine, Stony Brook, New York.

*12.17 Other Psychotic Disorders*

**Shaun P. Brothers, Ph.D.** Assistant Professor, Center for Therapeutic Innovation, Department of Psychiatry and Behavioral Sciences, University of Miami Leonard M. Miller School of Medicine, Miami, Florida.

*1.6 Neuropeptides: Biology, Regulation, and Role in Neuropsychiatric Disorders*

**Daniel P. Brown, Ph.D.** Associate Clinical Professor in Psychology, Department of Psychiatry, Harvard Medical School, Boston, Massachusetts.

*33.4 Hypnosis*

**E. Sherwood Brown, M.D., Ph.D.** Professor and Vice Chairman for Clinical Research, Aradine S. Ard Chair in Brain Science, Department of Psychiatry, University of Texas Southwestern Medical Center at Dallas, Dallas, Texas.

*27.5 Respiratory Disorders*

**Regina Bussing, M.D.** Donald R. Dizney Chair in Psychiatry, Professor and Interim Chair, Department of Psychiatry, University of Florida College of Medicine, Gainesville, Florida.

*55.10 Child Mental Health Services Research*

**Joanne Alonso Byars, M.D.** Assistant Professor, Beth K. and Stuart C. Yudofsky Division of Neuropsychiatry, Department of Psychiatry, Baylor College of Medicine, TIRR Memorial Hermann, Houston, Texas.

*2.5 Neuropsychiatric Consequences of Traumatic Brain Injury*

**William M. Byne, M.D., Ph.D.** Associate Professor, Department of Psychiatry, Icahn School of Medicine at Mount Sinai, Mental Illness Research, Education and Clinical Center, James J Peters VA Medical Center, Bronx, New York, New York.

*21.2 Homosexuality, Gay and Lesbian Identities, and Homosexual Behavior, 21.4 Gender Identity, Gender Variance, and Gender Dysphoria*

**Christine C. Call, A.B.** Doctoral Student in Clinical Psychology, Department of Psychology, Drexel University College of Medicine, Philadelphia, Pennsylvania.

*22 Feeding and Eating Disorders*

**Glorisa Canino, Ph.D.** Professor, Department of Pediatrics, University of Puerto Rico School of Medicine; Director, Behavioral Sciences Research Institute, University of Puerto Rico School of Medicine, Medical Sciences, San Juan, Puerto Rico.

*58.7 A Sociocultural Framework for Mental Health and Substance Abuse Service Disparities*

**William A. Carlezon, Jr., Ph.D.** Professor of Psychiatry and Neuroscience, Harvard Medical School; Chief, Basic Neuroscience Division; Director, Behavioral Genetics Laboratory, McLean Hospital, Belmont, Massachusetts.

*1.24 Neuroscience of Substance Use Disorders*

**Gabrielle A. Carlson, M.D.** Professor of Psychiatry and Pediatrics, Department of Psychiatry; Director Emerita, Division of Child and Adolescent Psychiatry, Distinguished Consulting Psychiatrist, Department of Psychiatry, Stony Brook University School of Medicine, Stony Brook, New York.

*51.2 Early-Onset Bipolar Disorder*

**Regina M. Carney, M.D.** Assistant Clinical Professor, Department of Psychiatry and Behavioral Sciences, University of Miami Leonard M. Miller School of Medicine, Miami, Florida.

*34.12 Buspirone*

**B.J. Casey, Ph.D.** Professor of Psychology, Yale School of Medicine, New Haven, Connecticut.

*14.6 Neuroimaging and the Neuroanatomical Circuits Implicated in Anxiety, Fear, and Stress-Related Disorders*

**Tara Chandrasekhar, M.D.** Medical Instructor, Division of Child and Family Mental Health and Developmental Neuroscience, Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, North Carolina.

*53 Early-Onset Psychotic Disorders*

**Moses V. Chao, Ph.D.** Professor of Cell Biology, Neuroscience and Physiology and Psychiatry, Skirball Institute of Biomolecular Medicine, New York University School of Medicine, New York, New York.

*1.7 Neurotrophic Factors*

**Dennis S. Charney, M.D.** Professor, Departments of Psychiatry, Neuroscience, and Pharmacological Sciences; Anne and Joel Ehrenkranz Dean, Icahn School of Medicine at Mount Sinai; President for Academic Affairs, Mount Sinai Health System, New York, New York.

*14.5 Anxiety Disorders: Neurobiology and Neuroscience*

**Elena H. Chartoff, Ph.D.** Assistant Professor of Psychiatry and Neuroscience, Harvard Medical School, Boston, Massachusetts; Director, Neurobiology of Motivated Behavior Laboratory, McLean Hospital, Belmont, Massachusetts.

*1.24 Neuroscience of Substance Use Disorders*

**Irene Chatoor, M.D.** Professor of Psychiatry and Pediatrics, George Washington University School of Medicine and Health Sciences; Vice Chair, Department of Psychiatry and Behavioral Sciences, Children's National Medical Center, Washington, D.C.

*47 Feeding and Eating Disorders of Infancy and Early Childhood*

**Stephen T. Chen, M.D.** Associate Clinical Professor of Health Sciences, Department of Psychiatry and

Biobehavioral Sciences, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California.

*57.3f Alzheimer Disease and Other Neurocognitive Disorders*

**Paul Ciechanowski, M.D.** Clinical Associate Professor, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, Washington.

*27.6 Diabetes: Psychosocial Issues and Psychiatric Disorders*

**Angel Cienfuegos, M.D.** Associate Clinical Professor of Health Sciences, David Geffen School of Medicine at University of California Los Angeles; Mental Health Psychiatrist, Greater Los Angeles VA Health Care System, Los Angeles, California.

*58.5 The Psychiatric Hospitalist*

**Chiara Cirelli, M.D., Ph.D.** Professor, Department of Psychiatry, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin.

*1.22 Basic Science of Sleep*

**Caroline Gray Clark, B.A., M.S.S.W.** Researcher, Behavioral Activation Therapy and Theory Lab for Emotion, University of Tennessee Health Science Center College of Medicine, Memphis, Tennessee.

*33.3 Behavior Therapy*

**E. Will Clark, M.D.** Assistant Professor, Department of Psychiatry, University of Texas Southwestern Medical Center at Dallas; Attending Psychiatrist and Assistant Medical Director, Zale Lipshy University Hospital – Inpatient Psychiatry, Dallas, Texas.

*33.11 Other Methods of Psychotherapy*

**Michael R. Clark, M.D.** Vice Chair, Clinical Affairs; Director, Pain Treatment Programs, Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, Maryland.

*27.15 Management of Chronic Pain*

**Diana E. Clarke, Ph.D.** Research Statistician/Epidemiologist, American Psychiatric Association, Arlington, Virginia.

*5.1 Quantitative and Experimental Methods in Psychiatry: Epidemiology*

**Anita H. Clayton, M.D.** David C. Wilson Professor and Chair, Department of Psychiatry and Neurobehavioral Sciences; Professor of Clinical Obstetrics & Gynecology, University of Virginia School of Medicine, Charlottesville, Virginia.

*34.40 Treatment of Erectile Disorder*

**Brett A. Clementz, Ph.D.** Professor of Psychology and Neuroscience, Bioimaging Research Center, Medical College of Georgia, Augusta, Georgia.

*12.11 Phenotypes of Psychosis*

**C. Robert Cloninger, M.D., Ph.D.** Department of Psychiatry, Washington University School of Medicine in St. Louis, St. Louis, Missouri.

*26 Personality Disorders*

**Robert T. Cobb, M.D.** Assistant Professor of Clinical Psychiatry, Department of Psychiatry and Behavioral

Sciences, Keck School of Medicine of the University of Southern California; Attending Staff, Psychiatric Emergency Services, Los Angeles County and University of Southern California Medical Center; Attending Staff, Department of Psychiatry, Keck Hospital of the University of Southern California, Los Angeles, California.

### *32.3 Other Psychiatric Emergencies*

**Barbara J. Coffey, M.D.** Chief, Tics and Tourette's Clinical and Research Program, Division of Tics, OCD, and Related Problems, Icahn School of Medicine at Mount Sinai; Professor, Department of Psychiatry, Mount Sinai Behavioral Science Unit, New York, New York.

### *48 Tic Disorders*

**Carl I. Cohen, M.D.** Distinguished Service Professor, Division of Geriatric Psychiatry, State University of New York Downstate Medical Center, Brooklyn, New York.

### *57.3h Schizophrenia and Delusional Disorders*

**Judith A. Cohen, M.D.** Professor of Psychiatry, Drexel University College of Medicine, Philadelphia, Pennsylvania; Professor and Medical Director, Center for Traumatic Stress in Children and Adolescents, Department of Psychiatry, Allegheny General Hospital, Pittsburgh, Pennsylvania.

### *52.2 Posttraumatic Stress Disorder in Children and Adolescents*

**Calvin A. Colarusso, M.D.** Clinical Professor of Psychiatry, University of California San Diego School of Medicine, La Jolla, California.

### *56 Adulthood*

**Robert F. Cole, Ph.D.** Adjunct Assistant Professor, Psychiatry, University of Connecticut School of Medicine, Farmington, Connecticut.

### *58.1 Public and Community Psychiatry, 58.2 Reforming Health Care*

**Hilary S. Connery, M.D., Ph.D.** Assistant Professor, Department of Psychiatry, Harvard Medical School, Boston; Clinical Director, Division of Alcohol and Drug Abuse, McLean Hospital, Belmont, Massachusetts.

### *1.24 Neuroscience of Substance Use Disorders*

**Daniel F. Connor, M.D.** Lockean Distinguished Chair in Mental Health Education, Research and Clinical Improvement, Professor of Psychiatry, Chief, Division of Child and Adolescent Psychiatry, University of Connecticut School of Medicine, Farmington, Connecticut.

### *46 Disruptive Behavior Disorders in Children and Adolescents*

**Jana R. Cooke, M.D.** Pulmonary and Sleep Medicine, The Everett Clinic, Everett, Washington, D.C.

### *57.3c Sleep-Wake Disorders in Older Adults*

**Philip R. Corlett, Ph.D.** Assistant Professor, Department of Psychiatry, Yale University School of Medicine; Ribicoff Research Facilities, Connecticut Mental Health Center, New Haven, Connecticut.

### *1.27 Learning Theory and Psychosis, Anxiety, and Addiction*

**Ann Elizabeth Cornell, Psy.D.** Assistant Professor of Psychiatry, School of Medicine and Dentistry, University of Rochester School of Medicine and Dentistry, Rochester, New York.

### *57.4j Family Intervention and Therapy with Older Adults*

**Kimberly Ann Corp, M.S., M.F.T.** Doctoral Candidate, Alliant International University, San Diego, California.

*57.2d Psychological Changes with Normal Aging*

**Christoph U. Correll, M.D.** Professor of Psychiatry and Molecular Medicine, Department of Psychiatry and Molecular Medicine, Hofstra North Shore-LIJ School of Medicine at Hofstra University; Medical Director, Recognition and Prevention (RAP) Program, Department of Psychiatry, Zucker Hillside Hospital, Hempstead, New York.

*12.12 Schizophrenia: Pharmacological Treatment*

**Paul T. Costa, Jr., Ph.D.** Adjunct Professor, Department of Psychiatry and Behavioral Science, Duke Medical Center, Durham, North Carolina; Professor of Behavioral Biology, Department of Psychiatry and Behavioral Sciences, Johns Hopkins School of Medicine; Professor, Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore Maryland.

*6.4 Approaches Derived from Philosophy and Psychology*

**Sara Costi, M.D.** Research Fellow, Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, New York.

*14.5 Anxiety Disorders: Neurobiology and Neuroscience*

**Joseph T. Coyle, M.D.** Eben S. Draper Professor of Psychiatry and Neuroscience, Department of Psychiatry, Harvard Medical School, Boston, Massachusetts; McLean Hospital, Belmont, Massachusetts.

*1.5 Amino Acid Neurotransmitters*

**Louis J. Cozolino, Ph.D.** Professor of Psychology, Pepperdine University, Malibu, California; Adjunct Clinical Professor of Psychiatry, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California.

*3.1 Contributions of the Psychological Sciences: Sensation, Perception, and Cognition*

**Adam R. Critchfield, M.D.** Instructor in Psychiatry, Department of Consultation-Liaison Psychiatry, Columbia University College of Physicians and Surgeons; Assistant Attending Psychiatrist, Department of Consultation-Liaison Psychiatry, Columbia University Medical Center, New York, New York.

*27.2 Cardiovascular Disorders*

**Paul E. Croarkin, D.O.** Assistant Professor of Psychiatry, Mayo Clinic, Rochester, Minnesota.

*57.4f Electroconvulsive Therapy and Other Neurostimulation Treatments*

**Elizabeth A. Crocco, M.D.** Associate Clinical Professor, Department of Psychiatry and Behavioral Science, University of Miami Leonard M. Miller School of Medicine, Miami, Florida.

*34.15 Cholinesterase Inhibitors and Memantine*

**Catherine Chang Crone, M.D.** Associate Professor of Psychiatry, George Washington University School of Medicine and Health Sciences, Washington, D.C.; Clinical Professor of Psychiatry, Virginia Commonwealth University School of Medicine, Richmond; Vice Chair, Department of Psychiatry, Inova Fairfax Hospital, Falls Church, Virginia.

*27.13 Organ Transplantation*

**Rosie E. Curiel Cid, Psy.D.** Assistant Professor, Department of Psychiatry and Behavioral Sciences,

University of Miami Leonard M. Miller School of Medicine, University of Miami Hospital & Jackson Memorial Medical Center, Miami, Florida.

*58.6 Psychiatric Rehabilitation*

**John F. Curry, Ph.D.** Professor, Department of Psychiatry and Behavioral Sciences and Department of Psychology and Neuroscience, Duke University School of Medicine, Durham, North Carolina.

*3.2 Piaget and Cognitive Development: History, Theory, Extensions and Modifications*

**Smita Das, M.D., Ph.D.** Clinical Assistant Professor (Affiliated), Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine; Director of Addiction Treatment Services, Department of Psychiatry, Veterans Administration Palo Alto Health System Stanford, California.

*11.8 Tobacco-Related Disorders*

**Keith A. Davidson, J.D.** Partner, Albertson & Davidson, LLP, Ontario, California.

*57.6b Forensic Aspects*

**\*Michael C. Davis, M.D., Ph.D.** Medical Officer, Division of Psychiatry Products, Office of New Drugs, Center for Drug Evaluation and Research, U.S. Food and Drug Administration.

*34.28 Second-Generation Antipsychotics*

**Dimitry S. Davydow, M.D.** Associate Professor, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, Washington.

*27.11 Psychiatric Morbidity Following Critical Illness*

**Nina De Lacy, M.D.** Acting Assistant Professor, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine; Co-Director, Developmental Neuropsychiatry, Seattle Children's Hospital, Seattle, Washington.

*40 Intellectual Disability*

**Mark DeAntonio, M.D.** Professor of Clinical Psychiatry, Jane and Terry Semel Institute for Neuroscience and Human Behavior, David Geffen School of Medicine at University of California Los Angeles; Director, Inpatient Child and Adolescent Service, Resnick Neuropsychiatric Hospital, Los Angeles, California.

*55.4 Psychiatric Sequelae of HIV and AIDS*

**Charles DeBattista, M.D.** Professor of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, California.

*34.11 Bupropion, 34.38 Combination Pharmacotherapy*

**Lauren N. DeCaporale-Ryan, Ph.D.** Assistant Professor of Psychiatry (Psychology), Medicine, & Surgery, University of Rochester School of Medicine and Dentistry, Rochester, New York.

*57.4j Family Intervention and Therapy with Older Adults*

**Louisa Degenhardt, Ph.D.** Professor of Epidemiology, National Drug and Alcohol Research Centre, University of New South Wales Faculty of Medicine, Sydney, New South Wales, Australia.

*11.5 Cannabis-Related Disorders*

**Shannon L. Delaney, M.D.** Child and Adolescent Psychiatry Division, Columbia University College of Physicians and Surgeons, New York, New York.

## *2.9 Neuropsychiatric Aspects of Other Infectious Diseases (Non-HIV)*

**James S. Demer, M.D.** Assistant Professor, Department of Psychiatry and Behavioral Sciences, State University of New York Upstate Medical University, Syracuse, New York.

### *55.11 Impact of Terrorism on Children*

**Colin A. Depp, Ph.D.** Associate Professor, Department of Psychiatry, University of California San Diego School of Medicine, La Jolla, California.

### *57.6h Technology for Seniors*

**Abhilash K. Desai, M.D.** Adjunct Associate Professor, Department of Psychiatry, Division of Geriatric Psychiatry, Saint Louis University School of Medicine, St. Louis, Missouri; Adjunct Associate Professor, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, Washington.

### *57.6a Psychiatric Aspects of Long-term Care*

**Davangere P. Devanand, M.D.** Professor of Psychiatry and Neurology, Director of Geriatric Psychiatry, Columbia University College of Physicians and Surgeons; Attending Psychiatrist, New York Presbyterian Hospital New York, New York.

### *57.2a Psychiatric Assessment of the Older Patient*

**Mary Amanda Dew, Ph.D.** Professor of Psychiatry, Psychology, Epidemiology, Biostatistics, Clinical and Translational Science, Department of Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

### *27.13 Organ Transplantation*

**Emanuel DiCicco-Bloom, M.D.** Professor, Department of Neuroscience and Cell Biology, Department of Pediatrics (Division of Child Neurology and Neurodevelopmental Disabilities), Robert Wood Johnson Medical School of Rutgers University, New Brunswick, New Jersey.

### *1.3 Neural Development and Neurogenesis*

**Andrea Frances DiMartini, M.D.** Professor of Psychiatry and Surgery, Medical Director of Transplant Psychiatry, University of Pittsburgh School of Medicine, Starzl Transplant Institute, Pittsburgh, Pennsylvania.

### *27.13 Organ Transplantation*

**Joel E. Dimsdale, M.D.** Distinguished Professor of Psychiatry Emeritus and Research Professor, Department of Psychiatry, University of California San Diego School of Medicine, La Jolla, California.

### *18 Somatic Symptom and Related Disorders, 27.10 Stress and Psychiatry*

**Arden D. Dingle, M.D.** Professor, Department of Psychiatry, University of Texas Rio Grande Valley School of Medicine, Brownsville, Texas.

### *55.7 Ethical Issues in Child and Adolescent Psychiatry*

**Lisa B. Dixon, M.D., Ph.D.** Professor of Psychiatry, Columbia University College of Physicians and Surgeons; Director, Division of Behavioral Health Services and Policy Research, New York State Psychiatric Institute, New York, New York.

### *58.4 Mental Health Services Research*



**Yuriy Dobry, M.D.** Assistant Professor, Division of Child and Adolescent Psychiatry, Department of Psychiatry, University of California San Francisco School of Medicine, San Francisco, California.

*34.29 Central Nervous System Sympathomimetic Compounds*

**Dan Doherty, M.D., Ph.D.** Associate Professor of Pediatrics, Divisions of Genetic and Developmental Medicine, University of Washington School of Medicine, Seattle Children's Hospital, Seattle, Washington.

*40 Intellectual Disability*

**Robert Lloyd Doyle, M.D., D.D.S.** Instructor in Psychiatry, Harvard Medical School; Staff Psychiatrist, Child and Adolescent Psychiatry, Massachusetts General Hospital, Boston, Massachusetts.

*50.2 Stereotypic Movement Disorders in Children*

**Robert E. Drake, M.D., Ph.D.** Professor of Health Policy and Clinical Practice, Geisel School of Medicine at Dartmouth; Vice President, Westat Corporation, Lebanon, New Hampshire.

*12.13 Psychiatric Rehabilitation*

**Jack Drescher, M.D.** Clinical Professor of Psychiatry, Department of Psychiatry, Columbia University College of Physicians and Surgeons; Adjunct Professor, Postdoctoral Program in Psychotherapy and Psychoanalysis, New York University School of Medicine, New York, New York.

*21.2 Homosexuality, Gay and Lesbian Identities, and Homosexual Behavior, 21.4 Gender Identity, Gender Variance, and Gender Dysphoria*

**Yuanli Duan, M.D., Ph.D.** Attending Psychiatrist, Department of Psychiatry & Behavioral Sciences, Nassau University Medical Center, East Meadow, New York.

*34.35 Electroconvulsive Therapy*

**Steven L. Dubovsky, M.D.** Professor and Chair, Department of Psychiatry, Jacobs School of Medicine and Biomedical Sciences University at Buffalo, Buffalo, New York; Adjoint Professor of Psychiatry and Medicine, University of Colorado School of Medicine, Denver, Colorado; University Chair, Psychiatry, Erie County Medical Center, Buffalo, New York.

*34.9 Barbiturates and Similarly Acting Substances,*

*34.10 Benzodiazepine Receptor Agonists and Antagonists,*

*34.13 Calcium Channel Inhibitors*

**Jennifer J. Dunkin, Ph.D.** Clinical Professor (Voluntary), Department of Psychiatry and Behavioral Sciences, University of California San Diego School of Medicine, La Jolla, California; Staff Psychologist, San Diego Veterans Administration Healthcare System, San Diego, California.

*57.2d Psychological Changes with Normal Aging*

**Dino Dvorak, Ph.D.** Postdoctoral Associate, Neurobiology of Cognition Laboratory, Center for Neural Science, New York University School of Medicine, New York, New York.

*1.26 Basic Systems Neuroscience*

**Jennifer B. Dwyer, M.D., Ph.D.** Fellow, Albert J. Solnit Integrated Training Program in Adult and Child Psychiatry, Yale Child Study Center, Yale School of Medicine, New Haven, Connecticut.

*1.25 Epigenetics in Psychiatry: The Promise for New Biomarkers and Treatments*

**Charles E. Easley, Ph.D.** Assistant Professor and Morgenthaler Faculty Fellow, Department of

Management Science and Engineering, School of Engineering, Stanford University School of Engineering, Stanford, California.

*12.10 Neurocognition in Schizophrenia*

**Helen Link Egger, M.D.** Assistant Professor of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, North Carolina.

*36.2 Psychiatric Assessment of Preschool Children*

**Stuart J. Eisendrath, M.D.** Professor of Psychiatry, University of California San Francisco School of Medicine, San Francisco, California.

*19 Factitious Disorder*

**Zhanna Elberg, M.D.** Assistant Professor of Clinical Psychiatry, Director, Psychotherapy Training, Department of Psychiatry, Jacobs School of Medicine and Biomedical Sciences University at Buffalo; Department of Psychiatry, Attending Psychiatrist/Director of Outpatient Residency Training, Department of Psychiatry, Erie County Medical Center Outpatient behavioral health, Buffalo, New York.

*54.1 Individual Psychodynamic Psychotherapy (Child Psychiatry)*

**John D. Elsworth, Ph.D.** Senior Research Scientist, Department of Psychiatry, Neuropsychopharmacology Research Unit, Yale University School of Medicine, New Haven, Connecticut.

*1.4 Biogenic Amine Neurotransmitters*

**Steven A. Epstein, M.D.** Professor and Chair, Department of Psychiatry, Georgetown University School of Medicine; Chief of Service, Department of Psychiatry, MedStar Georgetown University Hospital, Washington, D.C.

*27.1 History and Current Trends*

**Rodrigo Escalona, M.D.** Professor of Psychiatry, Vice Chair for Veterans Affairs, University of New Mexico School of Medicine; Director, Behavioral Health Care Line; Chief of Psychiatry, New Mexico VA Health Care System, Albuquerque, New Mexico.

*12.2 Phenomenology of Schizophrenia*

**Javier I. Escobar, M.D.** Professor of Psychiatry and Family Medicine, Associate Dean for Global Health, Robert Wood Johnson Medical School of Rutgers University, New Brunswick, New Jersey.

*9.1 Present and Future of Classification Systems for Mental Disorders, 9.2 The Classification of Mental Disorders in the International Classification of Diseases (ICD-11), 18 Somatic Symptom and Related Disorders*

**Spencer Eth, M.D.** Professor and Director, Forensic Psychiatry Fellowship Program, University of Miami Leonard M. Miller School of Medicine; Chief of Mental Health, Miami VA Healthcare System, Miami, Florida.

*60.1 Clinical-Legal Issues in Psychiatry*

**John David Eun, B.A.** Postbaccalaureate IRTA Fellow, Genetic Epidemiology Research Branch, National Institutes of Mental Health, Bethesda, Maryland.

*14.3 Epidemiology of Anxiety Disorders*

**Lisa T. Eyler, Ph.D.** Professor, Department of Psychiatry, University of California San Diego School of

Medicine, La Jolla, California; Clinical Research Psychologist, Desert Pacific Mental Illness Research Education, and Clinical Center, VA San Diego Healthcare System, San Diego, California.

#### *57.2f Neuroimaging*

**Harris A. Eyre, M.B.B.S. (Hons.)** Visiting Fulbright Graduate Researcher, Jane and Terry Semel Institute for Neuroscience and Human Behavior, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California; Ph.D. Candidate, Discipline of Psychiatry, University of Adelaide Faculty of Health Sciences, Adelaide, South Australia, Australia; Affiliate Research Fellow, College of Medicine and Dentistry, James Cook University College of Medicine and Dentistry, Townsville, Queensland, Australia.

#### *57.2b Complementary, Alternative, and Integrative Medicine in Geriatric Psychiatry*

**Tanya J. Fabian, Pharm.D., Ph.D.** Assistant Professor of Pharmacy and Therapeutics and Psychiatry, University of Pittsburgh School of Medicine; Director of Pharmacy Research and Pharmacy Services, Western Psychiatric Institute and Clinic of University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania.

#### *10.2 Delirium*

**\*Peter A. Fahnstock, M.D.** Affiliated Assistant Professor of Psychiatry, University of Central Florida College of Medicine, Orlando, Florida; Psychiatrist, Mental Health and Behavioral Service, Department of Veterans Affairs, Bay Pines Veterans Affairs Healthcare System, Bay Pines, Florida.

#### *12.14 Medical Health in Schizophrenia*

**Nathan Fairman, M.D.** Assistant Clinical Professor, Department of Psychiatry and Behavioral Sciences, University of California Davis School of Medicine, Sacramento, California.

#### *57.6c Ethical Issues*

**Brian A. Fallon, M.D.** Professor of Psychiatry, Columbia University College of Physicians and Surgeons, New York State Psychiatric Institute, New York, New York.

#### *2.9 Neuropsychiatric Aspects of Other Infectious Diseases (Non-HIV)*

**Adam D. Farmer, Ph.D.** Neurogastroenterology Group, Blizard Institute of Cell and Molecular Science, Wingate Institute of Neurogastroenterology, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, United Kingdom; Department of Gastroenterology, University Hospitals of North Midlands, Stoke on Trent, United Kingdom.

#### *27.3 Gastrointestinal Disorders*

**Armando R. Favazza, M.D.** Emeritus Professor, Department of Psychiatry, University of Missouri School of Medicine, Columbia, Missouri.

#### *31.6 Psychiatry and Spirituality*

**Pariya L. Fazeli, Ph.D.** Assistant Professor, Department of Family, Community, and Health Systems, School of Nursing, University of Alabama School of Medicine, Birmingham, Alabama.

#### *57.3a Assessment of Functioning*

**Scott C. Fears, M.D., Ph.D.** Associate Professor, Department of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California.

#### *1.18 Gene Mapping Investigations of Psychiatric Disorders*

**Adriana Feder, M.D.** Associate Professor, Psychiatry Department; Associate Director for Research, World Trade Center Mental Health Program, Icahn School of Medicine at Mount Sinai, New York, New York.

*14.5 Anxiety Disorders: Neurobiology and Neuroscience*

**André Antonio Fenton, Ph.D.** Professor of Neural Science, Department of Psychology, Center for Neural Science, New York University School of Medicine, New York, New York.

*1.26 Basic Systems Neuroscience*

**Francisco Fernandez, M.D.** Inaugural Dean, School of Medicine, Vice President, Medical Affairs, University of Texas Rio Grande Valley School of Medicine, Brownsville, Texas.

*2.10 Neuropsychiatric Aspects of Prion Disease*

**Prudence W. Fisher, Ph.D.** Associate Professor of Clinical Psychiatric Social Work (in Psychiatry), Columbia University College of Physicians and Surgeons; Adjunct Associate Professor, Columbia School of Social Work; Research Scientist, Division of Child and Adolescent Psychiatry, New York State Psychiatric Institute, New York, New York.

*36.1 Psychiatric Examination of the Infant, Child, and Adolescent*

**Alastair J. Flint, M.B.** Professor and Vice Chair Research, Department of Psychiatry, University of Toronto Faculty of Medicine, Psychiatrist, Centre for Mental Health, University Health Network, Toronto, Ontario, Canada.

*57.4c Antianxiety Drugs*

**Edna B. Foa, Ph.D.** Professor of Clinical Psychology in Psychiatry, Department of Psychiatry, Perelman School of Medicine at University of Pennsylvania, Philadelphia, Pennsylvania.

*14.7 Anxiety Disorders: Cognitive-Behavioral Therapy*

**Laura J. Fochtmann, M.D.** Distinguished Service Professor, Department of Psychiatry, Department of Pharmacological Sciences, Department of Biomedical Informatics, Stony Brook University School of Medicine, Stony Brook, New York.

*7.3 Practice Guidelines in Psychiatry, 12.17 Other Psychotic Disorders*

**Peter Fonagy, Ph.D.** Professor and Head, Research Department of Clinical, Educational, and Health Psychology, University College London School of Medicine, London, United Kingdom.

*33.18 Mentalization-Based Treatment*

**Julian D. Ford, Ph.D.** Professor of Psychiatry and Law; Director, Center for Trauma Recovery and Juvenile Justice, University of Connecticut School of Medicine, Farmington, Connecticut.

*58.1 Public and Community Psychiatry, 58.2 Reforming Health Care*

**Brent P. Forester, M.D.** Assistant Professor of Psychiatry, Harvard Medical School, Boston, Massachusetts; Director, Division of Geriatric Psychiatry, Mclean Hospital, Belmont; Medical Director – Behavioral Health, Center for Population Health, Partners HealthCare, Boston, Massachusetts.

*57.3e Geriatric Mood Disorders*

**Martin Franklin, Ph.D.** Associate Professor of Clinical Psychology in Psychiatry, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania.

*54.2 Brief Psychotherapies for Childhood and Adolescence*

**Bradley W. Freeman, M.D.** Assistant Professor of Clinical Psychiatry, Department of Psychiatry and Behavioral Sciences, Vanderbilt University School of Medicine, Nashville, Tennessee.

*55.2 Child Maltreatment*

**Wanda P. Fremont, M.D.** Professor, Department of Psychiatry; Chief, Division of Child and Adolescent Psychiatry, State University of New York Upstate Medical University College of Medicine, Syracuse, New York.

*55.11 Impact of Terrorism on Children*

**Frederick J. Frese, Ph.D.** Professor, Department of Psychiatry, Northeast Ohio Medical University, Rootstown, Ohio; Clinical Assistant Professor of Psychology, Department of Psychiatry, Case Western Reserve University School of Medicine, Cleveland, Ohio.

*12.15 Recovery in Schizophrenia*

**Paul Frewen, Ph.D.** Associate Professor, Department of Psychiatry, Schulich School of Medicine and Dentistry, Western University, London, Ontario, Canada.

*20 Dissociative Disorders*

**Mark A. Frye, M.D.** Professor and Chair, Department of Psychiatry and Psychology, Mayo Clinic; Director, Mayo Clinic Depression Center, Rochester, Minnesota.

*34.14 Carbamazepine, 34.34 Valproate*

**Douglas R. Galasko, M.D.** Professor, Department of Neurosciences, University of California San Diego School of Medicine, La Jolla, California; Attending Neurologist, Department of Neurosciences, University of California San Diego Medical Center; Staff Physician, Neurology Service, Veterans Affairs Medical Center, San Diego, California.

*57.2c The Aging Brain*

**Isaac R. Galatzer-Levy, Ph.D.** Research Assistant Professor, Department of Psychiatry, New York University School of Medicine, New York, New York.

*5.2 Statistics and Experimental Design*

**Martha C. Gamboa, M.D.** Assistant Professor, Department of Psychiatry, New York Medical College, Valhalla, New York.

*27.14 Psychiatric Care of the Burned Patient*

**Joanna Juan Gan, M.D.** Instructor, Department of Neurology, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, California.

*2.4 Neuropsychiatric Aspects of Epilepsy*

**Eric L. Garland, Ph.D.** Associate Dean for Research College of Social Work, University of Utah School of Medicine, Salt Lake City, Utah.

*11.7 Inhalant-Related Disorders*

**Michael D. Garrett, M.D.** Professor of Clinical Psychiatry, Director of Psychotherapy Training, State University of New York Downstate Medical Center College of Medicine, Brooklyn, New York.

*33.16 Individual Psychodynamic Psychotherapy and Cognitive Behavioral Therapy for Psychosis*

**Jennifer Rose Gatchel, M.D., Ph.D.** Instructor in Psychiatry, Department of Psychiatry, Harvard Medical School; Assistant Psychiatrist, Department of Psychiatry, Massachusetts General Hospital, Boston; McLean Hospital, Belmont, Massachusetts.

*57.3e Geriatric Mood Disorders*

**Nori Geary, Ph.D.** Department of Psychiatry, Weill Cornell Medical College (Retired), New York, New York.

*1.23 Basic Science of Appetite*

**Dylan G. Gee, Ph.D.** Assistant Professor, Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut.

*14.6 Neuroimaging and the Neuroanatomical Circuits Implicated in Anxiety, Fear, and Stress-Related Disorders*

**Jeffrey L. Geller, M.D.** Professor of Psychiatry, University of Massachusetts Medical School, Worcester, Massachusetts.

*58.3 The Role of the Hospital in the Care of Persons with Mental Illness*

**Cynthia M. A. Geppert, M.D., Ph.D.** Professor, Department of Psychiatry, University of New Mexico School of Medicine; Chief, Consultation Psychiatry and Ethics, New Mexico Veterans Affairs Health Care System, Albuquerque, New Mexico.

*25 Adjustment Disorders*

**Ruth S. Gerson, M.D.** Assistant Professor (Clinical), Department of Child and Adolescent Psychiatry, New York University School of Medicine; Director, Children's Comprehensive Psychiatric Emergency Program, Bellevue Hospital Center, New York, New York.

*36.4 Psychiatric Emergencies in Children and Adolescents*

**Subroto Ghose, M.D., Ph.D.** Associate Professor, Department of Psychiatry, University of Texas Southwestern Medical Center at Dallas, Dallas, Texas.

*12.6 Cellular and Molecular Neuropathology of Schizophrenia*

**Stephen J. Glatt, Ph.D.** Associate Professor, Department of Psychiatry and Behavioral Sciences; Associate Professor, Department of Public Health and Preventive Medicine; Associate Professor, Department of Neuroscience and Physiology; Director, Psychiatric Genetic Epidemiology & Neurobiology Laboratory, State University of New York Upstate Medical University College of Medicine, Syracuse, New York.

*57.2g Genetics of Late-Life Neurodegenerative Disorders*

**Mary Margaret Gleason, M.D.** Associate Professor, Department of Psychiatry and Behavioral Sciences, Tulane University School of Medicine, New Orleans, Louisiana.

*50.1 Reactive Attachment Disorder and Disinhibited Social Engagement Disorder*

**Araceli Gonzalez, Ph.D.** Assistant Professor, Department of Psychology, California State University, Long Beach, California.

*52.4 Selective Mutism*

**Aviel Goodman, M.D.** Director, Minnesota Institute of Psychiatry, St. Paul, Minnesota.

*21.5 Sexual Addiction*

**Eric Granholm, Ph.D.** Professor, Department of Psychiatry, University of California San Diego School of Medicine, La Jolla, California; Veteran Affairs San Diego Healthcare System, San Deigo, California.

*57.4i Cognitive-Behavioral Therapy*

**John A. Gray, M.D., Ph.D.** Assistant Professor, Department of Neurology, Center for Neuroscience, University of California Davis School of Medicine, Sacramento, California.

*1.9 Intraneuronal Signaling*

**Julie A. Graziane, M.D.** Assistant Professor, Department of Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

*10.3 Dementia*

**Benjamin D. Greenberg, M.D., Ph.D.** Professor, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University; Butler Hospital, Providence, Rhode Island.

*34.37 Neurosurgical Treatments*

**Harvey Roy Greenberg, M.D.** Clinical Professor of Psychiatry, Albert Einstein College of Medicine at Yeshiva University, Bronx, New York.

*16 Pathological and Problem Gambling: Gambling Disorder*

**Laurence L. Greenhill, M.D.** Ruane Professor of Child Psychiatry, Division of Child and Adolescent Psychiatry, Columbia University College of Physicians and Surgeons; Research Psychiatrist, New York State Psychiatric Institute; Attending in Psychiatry, Department of Psychiatry, New York Presbyterian Hospital, New York, New York.

*45.1 Attention-Deficit/Hyperactivity Disorder*

†**Stanley I. Greenspan, M.D.** Clinical Professor of Psychiatry and Behavioral Science and Pediatrics, George Washington University School of Medicine and Health Sciences; Supervising Child Psychoanalyst, Washington Psychoanalytic Institute, Washington, D.C.

*3.2 Piaget and Cognitive Development: History, Theory, Extensions and Modifications*

**Mindy Greenstein, Ph.D.** Consultant, Department of Psychiatry and Behavioral Science, Memorial Sloan Kettering Cancer Center, New York, New York.

*27.9 End-of-Life and Palliative Care*

**Paul Richard Greenwood, L.L.B. (Hons.)** Deputy District Attorney, San Diego County and Head of Elder Abuse Prosecutions, San Diego, California.

*57.6e The Legal and Ethical Analysis of Elder Abuse*

**Tiffany A. Greenwood, Ph.D.** Assistant Professor, Department of Psychiatry, University of California San Diego School of Medicine, La Jolla, California.

*13.3 Mood Disorders: Genetics*

**Roland R. Griffiths, Ph.D.** Department of Psychiatry and Behavioral Sciences, Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, Maryland.

*11.4 Caffeine-Related Disorders*

**George T. Grossberg, M.D.** Samuel W. Fordyce Professor, Director, Division of Geriatric Psychiatry,