NATIONAL ACADEMIES Sciences Engineering Medicine

Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development

A Workshop

December 12-13, 2023

National Academy of Sciences Keck Center (Room 100)
500 5th St NW
Washington, DC 20001
Link to livestream

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Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development

December 12-13, 2023

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NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development

A Workshop

December 12-13, 2023 ▪ Washington, DC

Attention-deficit/hyperactivity disorder (ADHD) is a common childhood disorder that can continue through adolescence and into adulthood. Studies have shown an increase over the past decade in adult ADHD diagnosis and treatment in the United States and globally. In addition, the use of prescription stimulants for cognitive enhancement is on the rise. There is evidence that adults with ADHD may be more likely to develop a substance use disorder and there are concerns that the non-medical use of prescription stimulants could lead to misuse, overdose, or toxicity.

This public workshop will provide an opportunity for professionals who typically diagnose attention-deficit/hyperactivity disorder (ADHD) (e.g., physicians, psychologists, social workers, nurse practitioners, and other licensed counselors or therapists), drug developers, researchers, regulators, patients, and other stakeholders to examine the diagnosis and treatment of adults with ADHD.

The public workshop will feature invited presentations and discussions to:

- Discuss the criteria for diagnosis and treatment of adults with ADHD, considering health disparities and the lived experience of adults with ADHD.
- Consider what is known and unknown about the risks and benefits of ADHD medication use in adult populations.
- Share perspectives on the causes, perceptions, consequences, and health equity implications of non-medical use of prescription stimulants, including misuse potential, overdosage, and toxicity.
- Explore challenges and opportunities for the development of new and improved therapeutics for the treatment of ADHD.
- Consider potential strategies for assessing the risks and benefits of ADHD medication treatment in adult populations, including the intersection with opioid use, that support the public health goal of safely and effectively treating adults with ADHD.

The planning committee will organize the workshop, develop the agenda, select and invite speakers and discussants, and moderate or identify moderators for the discussions. A proceedings of the presentations and discussions at the workshop will be prepared by a designated rapporteur in accordance with institutional guidelines.

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Planning Committee

Carlos Blanco *(co-chair),* National Institute on Drug Abuse, NIH

Craig Surman *(co-chair),* Massachusetts General Hospital; Harvard Medical School

Amy Arnsten, Yale University School of Medicine

Andrea Chronis-Tuscano, University of Maryland, Department of Psychology

Taleed El-Sabawi, Florida International University

Evelyn Polk Green, Attention Deficit Disorder Association; Children and Adults with Attention-Deficit/Hyperactivity Disorder

Steve Lee, University of California, Los Angeles

James (Jimmy) Leonard, University of Maryland School of Pharmacy; Maryland Poison Center

Tamara Rosier, ADHD Coaches Organization; ADHD Center of West Michigan

Matthew Rudorfer, National Institute of Mental Health, NIH

Almut Winterstein, University of Florida

Stevin Zorn, MindImmune Therapeutics

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development – A Workshop

December 12, 2023, 9:00 am – 5:00 pm (ET)

December 13, 2023, 8:30 am – 2:00 pm (ET)

Keck Center, Keck 100
500 Fifth St. NW, Washington, DC, 20001

To watch the livestream, please visit the workshop page here.

PURPOSE

A two-day public workshop, convened by the National Academies of Sciences, Engineering, and Medicine's Forum on Drug Discovery, Development, and Translation; and Forum on Neuroscience and Nervous System Disorders; will provide an opportunity for professionals who typically diagnose attention-deficit/hyperactivity disorder (ADHD), drug developers, researchers, regulators, patients, and other stakeholders to examine the diagnosis and treatment of adults with ADHD.

The public workshop will feature invited presentations and discussions to:

- Discuss the criteria for diagnosis and treatment of adults with ADHD, taking into consideration health disparities and perspectives of people with lived experience.
- Consider what is known and unknown about the risks and benefits of ADHD medication use in adult populations.
- Share perspectives on the causes, perceptions, consequences, and health equity implications of non-medical use of prescription stimulants, including misuse potential, overdosage, and toxicity.
- Explore challenges and opportunities for the development of new and improved therapeutics for the treatment of ADHD.
- Consider potential strategies for assessing the risks and benefits of ADHD medication treatment in adult populations, including the intersection with opioid use, that support the public health goal of safely and effectively treating adults with ADHD.

DAY 1: TUESDAY, DECEMBER 12, 2023

9:00 am WELCOME, OPENING REMARKS, AND SETTING THE STAGE

CRAIG B.H. SURMAN, *Workshop Co-chair*
Director, Clinical and Research Program in Adult ADHD
Massachusetts General Hospital
Associate Professor of Psychiatry
Harvard Medical School

9:35 am REGULATORY OVERVIEW

MARTA SOKOLOWSKA
Deputy Center Director
Substance Use and Behavioral Health
Center for Drug Evaluation and Research
U.S. Food and Drug Administration

9:55 am SESSION I – DIAGNOSIS OF ADULTS WITH ADHD

Session Objectives:

- Discuss the criteria and available tools for diagnosis of ADHD in adults (including DSM 5 criteria, assessment tools, best practices in diagnosing the condition);
- Explore gaps and barriers when it comes to appropriate diagnosis of ADHD for different adult populations; and
- Consider the long-term public health implications of underdiagnosing, differential diagnosing, and misdiagnosing ADHD in adults and considerations for different populations.

9:55 am Presentation

ANN CHILDRESS
President
Center for Psychiatry and Behavioral Medicine, Inc.
President
The American Professional Society for ADHD and Related Disorders

10:20 am Panel Discussion

Moderator: Steve Lee, University of California, Los Angeles

Clinical Diagnosis Perspective
NAPOLEON HIGGINS
President and Chief Executive Officer
Bay Pointe Behavioral Health

Clinical Screening Perspective
SARA L. WEISENBACH
Associate Professor of Psychology in Psychiatry, Harvard Medical School
President, American Psychological Association, Society for Clinical Neuropsychology (Division 40)
Chief of Neuropsychology
McLean Hospital

Lived Experience Perspective

TAMARA ROSIER
Owner, ADHD Center of West Michigan
President
ADHD Coaches Organization

Research Perspective
MARGARET SIBLEY
Professor of Psychiatry and Behavioral Sciences
University of Washington School of Medicine

Discussion Questions:

1. Why do clinicians find it challenging to diagnose ADHD in adults (e.g., co-morbidities, differential diagnosis with other conditions such as depression, anxiety, other psychiatric conditions, and/or COVID-19)?
2. What barriers do adults experience when seeking a diagnosis of ADHD, particularly those from minority and medically underserved communities?
3. How does an ADHD diagnosis, or the lack of one, impact individuals across adulthood?
4. How is ADHD diagnosed under the DSM 5 criteria?

11:20 am **COFFEE BREAK**

11:50 am SESSION II – MEDICATION OPTIONS FOR ADULTS WITH ADHD: RISKS AND BENEFITS

Session Objectives:

- Consider what is known and unknown about the risks and benefits of ADHD medication use in adult populations;
- Consider the public health implications for potential overprescribing of Schedule II stimulants;
- Discuss the barriers (e.g., legal, regulatory, social, cultural) to access of equitable treatment for adults with ADHD; and
- Explore approaches for alternative treatment options for adults with ADHD (e.g., non-pharmacological interventions, re-tooling of existing medications, new drug development) that may reduce the risk of harm to patients, that take into account social and cultural considerations.

11:50 am **Presentation**

DAVID W. GOODMAN
Assistant Professor of Psychiatry and Behavioral Sciences
Johns Hopkins University School of Medicine

12:10 pm **Panel Discussion**

Moderator: James (Jimmy) Leonard, Maryland Poison Center; University of Maryland School of Pharmacy

Lived Experience Perspective
DUANE GORDON
President
Attention Deficit Disorder Association

Clinical/Pharmacology Perspective (Medication Treatments)

ANGELA MAHOME
Staff Psychiatrist
The University of Chicago

Research/Clinical Perspective (Nonmedication Treatments/CBT)
J. RUSSELL RAMSAY
Independent Practice
Former Co-Founder, Co-Director, Adult ADHD Treatment and Research Program
University of Pennsylvania

Regulatory Perspective
TIFFANY FARCHIONE
Director, Division of Psychiatry
Center for Drug Evaluation and Research, FDA

Discussion Questions:

1. What is known and unknown about the risks and benefits of medication (stimulant and non-stimulant) use for the treatment of ADHD in adult populations?
2. What are the primary barriers (e.g., legal, regulatory, social, cultural) to appropriate treatment for adults with ADHD and how have these barriers been overcome? What are the health equity implications of these approaches?
3. How can prescribers, clinicians, and other providers be better informed regarding the treatment options available to their patients?

1:10 pm **LUNCH BREAK**

2:00 pm SESSION III – IMPLICATIONS FOR DRUG DEVELOPMENT

Session Objectives:

- Consider areas of unmet treatment needs for adults with ADHD that could potentially be addressed through new and/or improved therapeutics; and
- Explore challenges and opportunities for the development of new and improved therapeutics for the treatment of ADHD, including options that may reduce the risk of diversion.

2:00 pm **Presentation**

CRAIG BERRIDGE
The Patricia Goldman-Rakic Professor of Psychology
University of Wisconsin, Madison

2:20 pm **Panel Discussion**

Moderator: Stevin Zorn, MindImmune Therapeutics

Industry Perspective
JONATHAN RUBIN
Chief Medical Officer and Senior Vice President of Research & Development
Supernus Pharmaceuticals

Neurobiology/Pharmacology Perspective

AMY ARNSTEN
Albert E. Kent Professor of Neuroscience and Professor of Psychology
Yale School of Medicine

Regulatory Perspective
ERIKA LIETZAN
William H. Pittman Professor of Law & Timothy J. Heinsz Professor of Law
University of Missouri School of Law

Discussion Questions:

1. How do available therapeutic treatment options meet the needs of adults with ADHD? What are the gaps/unmet medical needs?
2. How might alternative treatment options for adults with ADHD reduce the risk of harms, such as misuse potential, overdose, and toxicity?
3. What are the barriers and opportunities to the development of new medications for treating adults with ADHD?

3:20 pm **COFFEE BREAK**

3:50 pm SESSION IV – DAY 1 SYNTHESIS AND DISCUSSION

Session Objective:

- Discuss key themes from previous workshop sessions;
- Lay out questions to be addressed; and
- Consider next step opportunities for improving the diagnosis and treatment of adults with ADHD; implications for drug development.

3:50 pm **Panel Discussion**

Moderator: Craig B. H. Surman, Massachusetts General Hospital; Harvard Medical School

Pharmacology Perspective
ALMUT WINTERSTEIN
Director, Center for Drug Evaluation and Safety (CoDES) and Consortium for Medical Marijuana Clinical Outcomes Research
Distinguished Professor, Pharmaceutical Outcomes and Policy
University of Florida

Industry Perspective
DAVID BAKER
Former Pharmaceutical Executive – Shire, Alcobra, Vallon Pharmaceuticals
Board Member
Edge Foundation

Lived Experience Perspective
KOFI OBENG
Executive Director
Attention Deficit Disorder Association

Resources and Education Perspective
SUNNY PATEL
Senior Advisor for Children, Youth and Families
SAMHSA
Research Perspective

MARY SOLANTO
Professor of Pediatrics and Psychiatry
Zucker School of Medicine at Hofstra-Northwell

Discussion Questions:

1. Based on the day's sessions, what are the main themes you heard regarding the diagnosis, treatment, and drug development for ADHD in adult populations? What questions remain?
2. How can the use of a health equity framework help the those with adult ADHD, health professionals, and others better understand the social, political, economic, and environmental factors impacting the diagnosis and treatment of adult ADHD?
3. How do we bridge the gap from where we are now to where we want to be? What is needed and from whom?
4. What are some key things from today's sessions we should keep in mind as we move into Day 2?

4:35 pm **Audience Q&A**

4:50 pm DAY 1 CLOSING REMARKS

CARLOS BLANCO, *Workshop Co-chair*
Director, Division of Epidemiology, Services, and Prevention Research
National Institute on Drug Abuse, NIH

5:00 pm **ADJOURN WORKSHOP DAY 1**

5:00 pm **RECEPTION**

DAY 2: WEDNESDAY, DECEMBER 13, 2023

8:30 am OPENING REMARKS

CARLOS BLANCO, *Workshop Co-chair*
Director, Division of Epidemiology, Services, and Prevention Research
National Institute on Drug Abuse, NIH

8:40 am FIRESIDE CHAT

EVELYN POLK GREEN
Immediate Past President;
Attention Deficit Disorder Association
Past President;
Children & Adults with Attention Deficit/Hyperactivity Disorder

9:20 am SESSION V – ENABLING ACCESS TO RESOURCES AND SHARED DECISION MAKING FOR ADULTS WITH ADHD AND THEIR PROVIDERS

Session Objective:

- Share perspectives and available resources for prescribers, clinicians, and patients on the risks and benefits of ADHD medication use in adults, particularly for underserved populations;
- Discuss practical approaches that have helped overcome barriers (e.g., stigma, misdiagnosis) to appropriate diagnosis and treatment of adults with ADHD; and
- Consider opportunities to enable shared decision making between patients and their providers regarding the diagnosis and treatment of ADHD.

9:20 am Presentation

MARK OLFSON
Professor of Psychiatry, Medicine, and Law;
Professor of Epidemiology
Columbia University

9:40 am Presentation

LARA ROBINSON
Behavioral Scientist
National Center on Birth Defects and Developmental Disabilities, CDC

9:55 am Panel Discussion

Moderator: Andrea Chronis-Tuscano, University of Maryland, Department of Psychology

Lived Experience Perspective
KYLIE BARRON

Clinical Perspective
BRANDI WALKER
Chief Executive Officer
Marie Pauline Consulting, LLC

Psychiatrist Perspective
BENJAMIN CHEYETTE
Psychiatrist
Director of ADHD Programming
Mindful Health Solutions

Telehealth and Social Media Perspective
JESSICA GOLD
Associate Professor, Department of Psychiatry, University of Tennessee Health and Science Center
Chief Wellness Officer
University of Tennessee (UT) System
(As of 2/1/2024)

Discussion Questions:

1. What methods and/or systems are in place to support prescribers, clinicians, and other providers who diagnose and treat adults with ADHD? What else is needed?
2. Are there lessons learned from the diagnosis and treatment of pediatric populations that may be applicable for adult populations?
3. What approaches have and/or could help support adults with ADHD make informed decisions about the risks and benefits of ADHD medication use?
4. How can we best disseminate evidence-based educational materials/content about adult ADHD to patients (including those from diverse backgrounds) so that they can engage in informed discussions around their care?

10:55 am SESSION VI – PUBLIC HEALTH CONSIDERATIONS AND HARM REDUCTION STRATEGIES FOR ADHD MEDICATION USE

Session Objectives:

- Share perspectives on the causes, perceptions, consequences, and health equity implications of non-medical use of prescription stimulants;
- Discuss what is known and unknown about the intersection of ADHD medication use (medical and non-medical) and opioid use; and
- Consider how strategies to reduce the misuse of ADHD medications could impact public health (e.g., limiting patient access to medication, exacerbating existing health inequities).

10:55 am Presentation

BROOKE MOLINA
Professor of Psychiatry, Psychology, Pediatrics, Clinical & Translational Science
University of Pittsburgh

11:15 am Panel Discussion

Moderator: Taleed El-Sabawi, Florida International University

Clinical Perspective
ROBIN WEISS
Private Practice of Psychiatry
Past President
Maryland Psychiatric Society

Lived Experience Perspective
PATRICK KELLY

Research/Community Health Perspective
RYAN MCNEIL
Associate Professor, Director of Harm Reduction Research
Yale School of Medicine

Research/Clinical Perspective
KEVIN ANTSHEL
Professor of Psychology and Associate Department Chair
Syracuse University

Discussion Questions:

1. What is known and unknown about the intersection of ADHD medication use (medical and non-medical) and opioid use?
2. What are public health and health equity implications of not appropriately treating adults with ADHD?
3. What strategies (e.g., public health efforts, regulatory policies) have been deployed to reduce the misuse of ADHD medications and what was the impact on people with ADHD? What was the impact on public health?

12:15 pm **COFFEE BREAK**

12:45 pm SESSION VII – DAY 2 SYNTHESIS AND DISCUSSION

Session Objectives:

- Discuss key themes from previous workshop sessions; and
- Consider next step opportunities for improving the diagnosis and treatment of adults with ADHD.

12:45 pm **Panel Discussion**

Moderator: Carlos Blanco, National Institute on Drug Abuse, NIH

Clinical Perspective- ADHD in underserved populations
JOSEPH SCHATZ
Director, Psychiatric/Mental Health Nurse Practitioner Track
University of Pennsylvania School of Nursing

Lived Experience Perspective
TALEED EL-SABAWI
Assistant Professor of Law
Florida International University

Pharmacology Perspective
MATTHEW RUDORFER
Chief, Psychopharmacology, Somatic, and Integrated Treatment Research Program
National Institute of Mental Health, NIH

Research Perspective
AMELIA ARRIA
Director, Center on Young Adult Health and Development
Professor, Department of Behavioral and Community Health
University of Maryland School of Public Health

Family Medicine Perspective
LATASHA SELIBY PERKINS
Assistant Professor of Medicine
Georgetown University School of Medicine

Discussion Questions:

1. Based on the day's sessions, what are the main themes you heard regarding enabling access to resources, shared decision making, and strategies to reduce the misuse of ADHD medications for adults with ADHD? What questions remain?
2. How can the use of a health equity framework help those with adult ADHD, health professionals, and others better understand the social, political, economic, and environmental factors impacting the health and overall well-being of adults ADHD?
3. Considering everything you've heard over the past day and a half, what is important for the FDA to know as it relates to diagnosis, treatment, and drug development for adult ADHD?

1:35 pm **Audience Q&A**

1:50 pm **CLOSING REMARKS**

MARTA SOKOLOWSKA
Deputy Center Director
Substance Use and Behavioral Health
Center for Drug Evaluation and Research
U.S. Food and Drug Administration

CRAIG B.H. SURMAN, *Workshop Co-chair*
Director, Clinical and Research Program in Adult ADHD
Massachusetts General Hospital
Associate Professor of Psychiatry
Harvard Medical School

2:00 pm **ADJOURN DAY 2**

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Adult Attention-Deficit/Hyperactivity Disorder: Diagnosis, Treatment, and Implications for Drug Development – A Workshop

Planning Committee Biographies

Committee Co-Chairs

CARLOS BLANCO, M.D., PH.D., is the Director of the Division of Epidemiology, Services, and Prevention Research at the National Institute on Drug Abuse (NIDA), a component of the National Institutes of Health (NIH). Blanco is a national known expert in the epidemiology and treatment of addictive disorders with and without comorbid disorders. His accomplishments include, among others, a detailed examination of the course and stages of substance use disorders, the development of methods to quantify the generalizability of clinical trials, the development and testing of interventions that combine motivational interviewing with cognitive-behavioral therapy to improve retention and outcome in individuals with addictive disorders, and the creation of a virtual map of psychiatric disorders, based on empirical data, to guide research into the causes of mental disorders. Prior to joining NIDA, Blanco was Professor of Psychiatry at Columbia University Medical Center and a Research Psychiatrist at the New York State Psychiatric Institute. He is a graduate of Universidad Autónoma de Madrid (Spain) and completed his psychiatry residency at Columbia University, where he also completed a research fellowship. Blanco has authored over 200 peer-reviewed publications.

CRAIG B.H. SURMAN, M.D., is Director of the Clinical and Research Program in Adult ADHD and Staff Neuropsychiatrist at Massachusetts General Hospital. Surman investigates and educates disorders of self-regulation as an Associate Professor of Psychiatry at Harvard Medical School. He is co-chair of the Children and Adults with ADHD (CHADD) Professional Advisory Board, and a former Board member for the American Professional Society of ADHD and Related Disorders (APSARD), where he serves on the Board nominating committee. With international experts, he created "ADHD in Adults: A Practical Guide to Evaluation and Management." An advocate for evidence-informed care, he co-authored "FAST MINDS: How To Thrive If You Have ADHD (or think you might)." Contributing to over 50 investigations, he has illuminated the connection between Adult ADHD and comorbidities, and clarified the promise of novel behavioral, pharmacologic, and nutraceutical interventions for ADHD. Surman recently piloted application of remote digital measurement in ADHD treatment monitoring and in a clinical trial. To understand factors contributing to national ADHD treatment trends, he is currently collaborating with the Centers for Disease Control. He is a graduate of Oberlin College, University

of Massachusetts Medical School, and completed residency and fellowship training at Harvard Medical School.

Committee Members

AMY F.T. ARNSTEN, PH.D., is the Albert E. Kent Professor of Neuroscience at the Yale University School of Medicine. She is an international expert on the molecular regulation of the primate prefrontal cortex, the brain region most often afflicted in ADHD, and has developed a nonstimulant treatment for ADHD, guanfacine (Intuniv), that was FDA-approved for this indication in 2009. This is one of the few examples where knowledge arising from basic science has successfully translated to a treatment for human cognitive disorders. Guanfacine is also being used off-label to treat other prefrontal cortical disorders, including cognitive deficits from long-COVID. Arnsten is a member of the National Academy of Medicine and the recipient of the Goldman-Rakic Prize for Outstanding Research in Cognitive Neuroscience. She received her B.A. in Neuroscience from Brown University in 1976, creating the Neuroscience major, and her Ph.D. in Neuroscience from University of California, San Diego in 1982.

ANDREA M. CHRONIS-TUSCANO, PH.D., is a Professor of Psychology at the University of Maryland (UMD), College Park, and the Director of the UMD Students Understanding College Choices Encouraging and Executing Decisions for Success (SUCCEEDS) College Attention-Deficit/Hyperactivity Disorder (ADHD) Clinic. Chronis-Tuscano's research focuses broadly on understanding early predictors of developmental outcomes for children with ADHD (including depression and alcohol/substance use) and developing novel treatments which target these early risk and protective factors. Much of this research has addressed issues related to maternal parenting and psychopathology (namely, maternal depression and ADHD). Most recently, she has utilized hybrid effectiveness-implementation designs to develop treatments that can be implemented in community settings such as pediatrics and schools. Chronis-Tuscano is also the President-Elect of the Society for Clinical Child and Adolescent Psychology (APA Division 53); Past-President of the International Society for Research in Child and Adolescent Psychopathology; past Associate Editor of the Journal of Consulting & Clinical Psychology; Fellow of the Association for Psychological Science; Fellow of the Association for Behavioral & Cognitive Therapies (ABCT); former Associate Editor of the Journal of Clinical Child & Adolescent Psychology; and former standing member of the National Institute of Mental Health (NIMH) Mental Health Services Research (SERV) review committee. She is the recipient of multiple National Institute of Health (NIH) grants and has served on several NIH review committees relevant to developmental psychopathology and interventions.

TALEED EL-SABAWI, J.D., PH.D., is an interdisciplinary scholar, with a J.D. and a Ph.D. in Public Health, Health Services Management and Policy with a doctoral cognate in Political Science. Her area of expertise is in addiction and mental health policy, politics, and law, specifically contemporary issues at the intersection of addiction, race, and policing. El-Sabawi is a person with lived experience with ADD, adult diagnosis of ADD, and has been personally affected by the stimulant shortage. In addition to her scholarship, El-Sabawi has played an active

role in advising federal, state, and local governments, including the Office of National Drug Control Policy, U.S. Department of Justice, Jails Division, and N.C.'s Attorney General's Office. She has drafted a model law for the creation of non-police behavioral health crisis response teams, which is being circulated by organizers in New Orleans (LA), Nashville (TN), Columbus (OH), Chicago (IL), Boston (MA), and Durham (NC). El-Sabawi is on the advisory circle of the North Carolina Urban Survivors Union, a chapter of the Urban Survivors Union, on the Board of Directors for Next Distro and frequently works alongside persons who use drugs advocating for policy reform.

EVELYN POLK GREEN, M.S.ED., is a past national president of both the Attention Deficit Disorder Association (ADDA) and Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD). She is an adult with attention-deficit/hyperactivity disorder (ADHD), and the mother of two adult sons both of whom also have ADHD. Active in ADHD and mental health advocacy for close to 30 years, she has served as a leader representing the family voice in the ADHD and mental health communities in many capacities, including as a member of the Network on Children's Mental Health Services funded by the MacArthur Foundation. She frequently represents the family/consumer perspective on mental health issues and often speaks to audiences and the media on a variety of topics. She has been focused on the challenges of ADHD in minority, poor, and other underserved populations throughout her advocacy career. She is the recipient of several honors for her volunteer work in mental health and education, including the Beacon College Achieving Lifetime Vision and Excellence (ALiVE) Award for her advocacy work on behalf of children and adults with learning differences and ADHD. Green works as an administrator with the Chicago Public Schools, planning professional development programs for early childhood special education professionals and families. She holds bachelor and master's degrees from National Louis University and a master's degree from Northern Illinois University.

STEVE S. LEE, PH.D., is a Professor of Psychology and the Director of Clinical Psychology Training in the Department of Psychology at the University of California, Los Angeles (UCLA). He completed his undergraduate degree in psychology at the University of Chicago, his doctoral training in clinical psychology at UC Berkeley, and then post-doctoral training in psychiatric genetics at the University of Chicago. He is an expert in the origins, development, and outcomes of youth with ADHD and related disruptive behavior and emotional problems. His program of research leverages diverse methods spanning microanalytic coding of behavior and longitudinal designs to meta-analytic reviews. Lee was past Secretary/Treasurer of the International Society for Research in Child and Adolescent Psychopathology and Past-President of the Society for Clinical Child and Adolescent Psychology. He was the recipient of the 2021 Mavis Hetherington Award for Excellence in Applied Developmental Science from the American Psychological Association.

JAMES (JIMMY) LEONARD, PHARM.D., DABAT, is the Director of Clinical Services for the Maryland Poison Center and an Associate Professor at the University of Maryland School of Pharmacy. His practice and research focus on management and prevention of poisoning including

exploratory ingestions in children, medication errors in all populations, and self-harm attempts in adolescents and adults. He is a member of the American Association of Clinical Toxicology and America's Poison Centers (formerly American Association of Poison Control Centers). He is the chair of the data access committee for America's Poison Centers. He attended Washington State University for undergraduate and pharmacy school, followed by a one-year hospital residency in Olympia, Washington. After completion of residency, he did a two-year fellowship in Clinical Toxicology from 2017-2019 before joining the staff at the Maryland Poison Center and subsequently the faculty at the University of Maryland School of Pharmacy**.**

TAMARA ROSIER, PH.D., is founder of the Attention-Deficit/Hyperactivity Disorder (ADHD) Center of West Michigan, where she and her staff of coaches and therapists, work with individuals with ADHD (and their families) to learn strategies and develop new skills to live effectively with ADHD. Rosier's experiences as a college administrator, a professor, and a high school teacher afforded her valuable insight into ADHD and how it affects one's life. She is also the president of the ADHD Coaches Organization and co-chair of the International Conference on ADHD. She has published numerous articles about living with ADHD and frequently speaks at conferences. Her book, Your Brain's Not Broken, provides strategies for managing the emotional aspects of ADHD.

MATTHEW RUDORFER, M.D., is a longtime Medical Officer at the National Institute of Mental Health (NIMH), and serves as Chief of the Psychopharmacology, Somatic, and Integrated Treatment Research Program, Treatment and Preventive Interventions Research Branch, in the NIMH Division of Services and Intervention Research. In this capacity he oversees grants and contracts supporting clinical trials, including pharmacotherapy studies, primarily in adults suffering from a range of mental disorders. In the past he served for a dozen years as Program Chair or Co-Chair of the annual New Clinical Drug Evaluation Unit (NCDEU) national treatment research meeting, which brought together clinical investigators from Government, academia, and industry. Following a term as Member and Chair of the FDA Psychiatric Drugs Advisory Committee, he remains an ad hoc voting member, providing uncompensated service to multiple advisory committees over the years. He is also past Editor-in-Chief of the peer-reviewed Psychopharmacology Bulletin. At present, he serves on the editorial boards of CNS Drugs and the Journal of ECT. In addition to his work at NIMH, Dr. Rudorfer maintains a small private practice in psychiatry and psychopharmacology. He is Board-Certified in Psychiatry and Clinical Pharmacology, and is a member of the American Society of Clinical Pharmacology and Therapeutics (ASCPT), the American Society of Clinical Psychopharmacology (ASCP), the Society of Biological Psychiatry, and the American Psychiatric Association. At present, he is Chair of the Continuing Medical Education (CME) Committee of the Washington Psychiatric Society. After receiving his medical degree from the State University of New York, Downstate College of Medicine, Rudorfer undertook his residency in Psychiatry at Washington University in St. Louis, followed by a National Institute of General Medical Science (NIGMS) Fellowship in Clinical

Pharmacology, prior to launching his research career, studying novel medications for the treatment of mood disorders, in the NIMH intramural program.

ALMUT G. WINTERSTEIN, PH.D., is Distinguished Professor in Pharmaceutical Outcomes and Policy, Affiliate Professor in Epidemiology, and the founding Director of the Center for Drug Evaluation and Safety at the University of Florida. In 2017, she was named the Dr. Robert and Barbara Crisafi Chair for Medication Safety in recognition of her research on drug safety and on devising ways to improve medication use. Winterstein's research interests center on the post-marketing evaluation of drugs in pediatrics and pregnancy, infectious disease and psychiatry and the evaluation of policy surrounding medication use using real-world data. As expert in drug safety, she has chaired the Food and Drug Administration's Drug Safety and Risk Management Advisory Committee from 2012-2018. Winterstein was inducted as a fellow of the International Society of Pharmacoepidemiology in 2013 and served as president of the society from 2019-2020. Since 2019 she serves as director of the Consortium for Medical Marijuana Clinical Outcomes Research, a state-funded consortium of 9 universities in Florida. In 2022 she was inducted in the Academy of Science, Engineering and Medicine in Florida. She received her pharmacy degree from Friedrich Wilhelm University in Bonn, Germany, and her Ph.D. in Pharmacoepidemiology from Humboldt University in Berlin.

STEVIN H. ZORN, PH.D., is currently president and CEO of MindImmune Therapeutics. Zorn is a neuropharmacologist with extensive executive experience throughout the pharmaceutical value chain, and has over 30 years of drug discovery and drug development success across a broad range of neuro and psychiatric disorders. Prior to co-founding MindImmune Therapeutics in 2016, Zorn was Executive Vice President and Site head for Neuroscience Research for Lundbeck's USA Research Site, Lundbeck Research U.S.A., and board member for Lundbeck USA. He has been a member of Lundbeck's Global Research Committee, Development Committee, Research and Development (R&D) Management Group, the R&D Executive Committee and U.S. R&D Management Group. He conceived of and built one of the first Neuroinflammation Disease Biology Units in the industry. There he established a talented group of scientists that brought together disciplines of immunology, inflammation, and neuroscience to capitalize on the recently growing knowledge base showing the relationship between neuroinflammation and central nervous system diseases to advance new approaches for the treatment of mental illness. This became Lundbeck U.S.A.'s primary area of focus. Prior to Lundbeck, Zorn was with Pfizer Global Research and Development for nearly 20 years. He held positions including head of General Pharmacology, Alzheimer's Disease Clinical Development Team Leader, Head of Psychotherapeutics Biology, Head of Neuroscience Therapeutics, Co-Chair of the Global Neuroscience Therapeutic Area Leadership Team including accountability for all R&D as well as commercialization, and was Vice President and Global Therapeutic Area Head for Central Nervous System Disorders Research at Pfizer including chair of the Global Research Therapeutic Area Leadership Team. Zorn became Pfizer's first global head of Neuroscience Research, was co-

architect of what became the company's overall Neuroscience area strategy and co-led the second largest and among the most productive therapeutic areas at Pfizer. As member of the Discovery Research Management Team of the Ann Arbor Pfizer site, Zorn was also jointly accountable for site deliverables from five therapeutic areas: neuroscience, cardiovascular, inflammation, dermatology, and infectious diseases. Across his industry career, Zorn shepherded or led research generating dozens of drug candidates from Lundbeck and Pfizer in clinical development for multiple indications; many have progressed to phase II/III or have advanced into commercialization. In conjunction with his responsibilities as President and CEO of MindImmune Therapeutics, Inc., Zorn is a Ryan Research Professor of Neuroscience at the University of Rhode Island. Zorn received a B.S. degree in chemistry from Lafayette College, Easton, PA, and M.S. and Ph.D. degrees in neurotoxicology and neuropharmacology, respectively, from the University of Texas Graduate School of Biomedical Sciences, Houston, TX. Subsequent postdoctoral research studies centered on basic research of brain and intracellular neuronal signaling mechanisms at the Rockefeller University, New York, N.Y., in the laboratory of Paul Greengard (Nobel Laureate).

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Adult Attention-Deficit/Hyperactivity Disorder (ADHD): Diagnosis, Treatment, and Implications for Drug Development – A Workshop

Speaker and Panelist Biographies

KEVIN ANTSHEL, PH.D., is a Professor of Psychology and Associate Department Chair at Syracuse University. Antshel's programmatic line of research focuses on better understanding the heterogeneity of ADHD with a specific emphasis on college student attention-deficit/hyperactivity disorder (ADHD). He is a board-certified clinical child and adolescent psychologist who maintains an active clinical practice devoted to ADHD.

AMELIA M. ARRIA, PH.D., is a Professor and the Director of the Center on Young Adult Health and Development in the Department of Behavioral and Community Health at the University of Maryland School of Public Health. Her research focuses on mental health and substance use problems among adolescents and young adults, including the nonmedical use of prescription drugs. Her most recent work has clarified the impact of substance use on academic achievement. She led the NIDA-funded prospective College Life Study, which investigated the behavioral health of 1253 college students through their young adult years. She is the co-leader of the Maryland Collaborative, a network of 19 colleges working to promote college student health with science-based strategies. She has authored more than 185 peer-reviewed publications. Her work has relevance to parents, communities, educational professionals and policymakers. She received a B.S. from Cornell University, a PhD in Epidemiology from the University of Pittsburgh and postdoctoral training in Psychiatric Epidemiology at Johns Hopkins University.

DAVID BAKER, MBA, has over 30 years of executive, operational and commercial leadership experience in the biopharmaceutical industry. He has been directly involved with the development and commercialization of multiple attention-deficit/hyperactivity disorder (ADHD) medications, including Adderall XR® and Vyvanse®, the two most successful ADHD brands based on annual revenue. He currently serves as an advisor to start up life sciences companies, as a board director, and as an angel investor. Previously, he was the co-founder and CEO of Vallon Pharmaceuticals, which worked to develop abuse-deterrent stimulants for ADHD. Prior to that, he was Chief Commercial Officer and interim CEO of Alcobra Ltd., a pharmaceutical company developing a novel non-stimulant for ADHD. He worked at Shire Plc for 10 years as Vice President of Commercial Strategy and New Business in the Neuroscience Business Unit, Global General Manager for Vyvanse® and Vice President, ADHD Marketing. Prior to Shire, he worked at Merck

& Co. in marketing, sales, market research, and business development. Mr. Baker earned a BA in Economics and Computer Science from Duke University, and an MBA from Duke's Fuqua School of Business.

KYLIE BARRON, MPH, was diagnosed with attention-deficit/hyperactivity disorder (ADHD) as a teenager and feels most at home working within the ADHD community. She is the Vice President of the Attention Deficit Disorder Association (ADDA) and has served as the Marketing Communications Chair on the Board of Directors since 2018. As a Public Health Marketing professional, Kylie's work combines innovative marketing strategies with forward-thinking health promotion techniques to catalyze positive health behavior changes within hard-to-reach audiences. Kylie spends her off-time contributing to her family's business and working as an Advanced EMT in her community. She loves watching Chicago Fire Soccer games with her husband, running around with her dog, and spending time with her family.

CRAIG BERRIDGE, PH.D., is the Patricia Goldman-Rakic Professor of Psychology at the University of Wisconsin-Madison. He has longstanding expertise in the behavioral and physiological actions of central catecholamines and catecholamine-targeting drugs, particularly psychostimulants. His lab was at the forefront in the development of experimental approaches for studying the neural mechanisms that support the procognitive actions of psychostimulants used in the treatment of attention-deficit/hyperactivity disorder (ADHD). This research definitively demonstrates that psychostimulants act directly in the prefrontal cortex to promote higher cognitive processes and identifies the catecholamine receptor mechanisms that underlie these actions. More recently he has used this information to identify non-catecholamine neurotransmitters within the prefrontal cortex that regulate higher cognitive function and that could be targeted in the development of novel treatments for cognitive dysfunction associated with ADHD.

ROBERT CALIFF, M.D., MACC, NAM, is Commissioner of Food and Drugs. President Joe Biden nominated Califf to head the U.S. Food and Drug Administration and Califf was sworn in on February 17, 2022. Previously, he served as Commissioner of Food and Drugs from February 2016 to January 2017. As the top official of the FDA, Califf is committed to strengthening programs and policies that enable the agency to carry out its mission to protect and promote the public health. Califf served as the FDA's Deputy Commissioner for Medical Products and Tobacco from February 2015 until his first appointment as Commissioner in February 2016. Prior to rejoining the FDA, Califf was head of medical strategy and Senior Advisor at Alphabet Inc., contributing to strategy and policy for its health subsidiaries Verily Life Sciences and Google Health. He joined Alphabet in 2019, after serving as a professor of medicine and vice chancellor for clinical and translational research at Duke University. He also served as director of the Duke Translational Medicine Institute and founding director of the Duke Clinical Research Institute. A nationally and internationally recognized expert in cardiovascular medicine, health outcomes research, health care quality, and clinical research, Califf has led many landmark clinical trials and is one of the most frequently cited authors in biomedical science, with more than 1,300 publications in the peer-reviewed literature. Califf became a Member of the National Academy of Medicine (formerly

known as the Institute of Medicine (IOM)) in 2016, one of the highest honors in the fields of health and medicine. Califf has served on numerous IOM committees, and he has served as a member of the FDA Cardiorenal Advisory Panel and the FDA Science Board's Subcommittee on Science and Technology. He has also served on the Board of Scientific Counselors for the National Library of Medicine, as well as on advisory committees for the National Cancer Institute, the National Heart, Lung, and Blood Institute, the National Institute of Environmental Health Sciences and the Council of the National Institute on Aging. While at Duke, Califf led major initiatives aimed at improving methods and infrastructure for clinical research, including the Clinical Trials Transformation Initiative (CTTI), a public-private partnership co-founded by the FDA and Duke. He also served as the principal investigator for Duke's Clinical and Translational Science Award and the NIH Health Care Systems Research Collaboratory Coordinating Center. Califf is a graduate of Duke University School of Medicine. He completed a residency in internal medicine at the University of California, San Francisco, and a fellowship in cardiology at Duke.

BENJAMIN CHEYETTE, M.D., PH.D., spent approximately20 years as faculty in the UCSF Department of Psychiatry, both as an Attending and as an NIH-funded Independent Investigator focused on genetically engineered mouse models of neurodevelopment. He retired as Professor Emeritus in 2018 and has since worked in the non-profit and private sectors treating insured psychiatric outpatients. Since Jan 2021 he has been the attention-deficit/hyperactivity disorder (ADHD) Program Director at Mindful Health Solutions (MHS), an interventional (TMS & esketamine) psychiatry practice with approximately100 providers in 4 states. At MHS he has developed training for adult psychiatrists and PMHNPs who typically arrive unprepared to diagnose and treat adult ADHD – the primary diagnosis in >15% of MHS patients and a highly comorbid secondary diagnosis in patients presenting with depression or anxiety - in line with recent US epidemiological data. MHS emphasizes Measurement-Based Care; Dr. Cheyette has accordingly developed a rapid self-administered ADHD symptom-tracking scale (the HII-5) closely modeled on the widely used PHQ-9 for depression and GAD-7 for anxiety.

ANN CHILDRESS, M.D., is President of the American Professional Society of Attention-Deficit/Hyperactivity Disorder (ADHD) and Related Disorders and is in private practice in Las Vegas, Nevada, where she specializes in the treatment of attention-deficit/hyperactivity disorder (ADHD). She has adjunct faculty appointments at the Kirk Kerkorian School of Medicine at UNLV and Touro University Nevada College of Osteopathic Medicine. Childress is board certified in psychiatry, with a subspecialty in child and adolescent psychiatry. She has authored more than 100 publications on the topic of ADHD. As an investigator, she has participated in approximately 250 clinical trials.

TIFFANY R. FARCHIONE, M.D., received her medical degree from Wayne State University in Detroit, Michigan, and completed adult residency and child & adolescent fellowship training at the University of Pittsburgh's Western Psychiatric Institute and Clinic (now UPMC Western Psychiatric Hospital). Farchione is board certified in both general and child & adolescent psychiatry. Prior to joining FDA in 2010, she was affiliated with the University of Pittsburgh Medical Center and was on the faculty of the University of Pittsburgh. As the Director of the

Division of Psychiatry in the Office of Neuroscience at FDA, Farchione is involved in the oversight of new drug review for all psychiatric drug development activities conducted under INDs, and the review of all NDAs and supplements for new psychiatric drug claims.

JESSICA GOLD, M.D., M.S., will be the Chief Wellness Officer of the University of Tennessee System and an Associate Professor in the Department of Psychiatry at the University of Tennessee Health and Science Center as of February 1st. She was previously the Director of Wellness, Engagement, and Outreach at Washington University in St Louis School of Medicine. She works clinically as an outpatient psychiatrist and sees faculty, staff, hospital employees, and their dependents, with special emphasis on college-aged kids. She also writes and is a regular expert for the media on mental health and been featured in, among others, The New York Times, The Atlantic, NPR, PBS News Hour, The Washington Post, and SELF. Gold is a graduate of the University of Pennsylvania with a B.A. and M.S in Anthropology, the Yale School of Medicine, and completed her residency training in Adult Psychiatry at Stanford University where she served as chief resident.

DAVID W. GOODMAN, M.D., is Assistant Professor of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine and Clinical Associate Professor of Psychiatry and Behavioral Sciences at the Norton School of Medicine, State University of New York-Upstate. An internationally recognized expert, he has presented over 600 lectures to medical specialists, authored peer-reviewed scientific papers, conducted clinical research on several of the ADHD medications now on the market, serves as a consultant to the NFL, widely quoted in national media, teaches 4th-year psychiatric residents at the Johns Hopkins School of Medicine and State University of New York-Upstate, serves as the Treasurer of APSARD (American Professional Society for ADHD and Related Disorders), and a member of the APSARD Task Force for the development of the APSARD's U.S. Clinical Practice Guidelines for the Diagnosis and Treatment of ADHD in adults.

DUANE GORDON is President of the Attention Deficit Disorder Association (ADDA). An adult with attention-deficit/hyperactivity disorder (ADHD) himself, he has 25 years' experience as an advocate for adults with ADHD. He was a founding member and co-leader of the Montreal Adult ADHD Support Group from 1998 to 2020. He joined ADDA in 2004 and began volunteering with ADDA in 2005. He joined ADDA's Communication team, volunteering as a writer, and later taking on the role of newsletter editor. In 2011, he joined ADDA's Board as Chair of Communication. The ADDA Board of Directors is a team of exceptional leaders with ADHD, and Duane is proud and grateful they chose him to lead as president in 2016. Gordon is an in-demand speaker on topics related to adult ADHD. He retired early from a career as a technology consultant to pursue his passions as an ADHD advocate and artist. He lives in Montreal, Canada.

NAPOLEON HIGGINS, M.D., is a child, adolescent and adult psychiatrist in Houston, Texas. He is the owner of Bay Pointe Behavioral Health Services and South East Houston Research Group. Higgins received his MD from Meharry Medical College in Nashville, Tennessee, and he completed his residency in Adult Psychiatry and his fellowship in Child and Adolescent Psychiatry at University of Texas Medical Branch at Galveston. He is the Executive Director of the Black

Psychiatrists of America, CEO of Global Health Psychiatry, President of the Black Psychiatrists of Greater Houston, and Past President of the Caucus of Black Psychiatrists of the American Psychiatric Association. Dr. Higgins is co-author of Bree's Journey to Joy: A Story about Childhood Grief and Depression, How Amari Learned to Love School Again: *A Story about ADHD*, Mind Matters: *A Resource Guide to Psychiatry for Black Communities* and author of Transition 2 Practice: *21 Things Every Doctor Must Know In Contract Negotiations and the Job Search*. He also specializes in nutrition and health to improve patients' lives mentally and physically. He emphasizes that good mental and physical health are key in the practice of psychiatry and medicine. Higgins has worked with and founded many programs that help to direct inner-city young men and women to aspire to go to college and finish their educational goals. He has worked with countless community mentoring programs and has special interest in trauma, racism, and inner-city issues and how they affect minority and disadvantaged children and communities.

PATRICK KELLY is a patient advocate who was diagnosed with attention-deficit/hyperactivity disorder (ADHD) in first grade. He started simulant therapy at diagnosis, which he continues to this day. He began to take an active role in his ADHD management seven years ago while he was getting sober. These two things had a synergistic effect; a 12-step program helped with ADHD management, and ADHD management helped sobriety. Patrick first became involved in the Attention Deficit Disorder Association (ADDA) in 2020 and has served as a facilitator for the Young People's Peer Support group since 2022. Despite major challenges due to ADHD and addiction, Patrick is a college graduate who lived overseas for a year and maintains close friendships. He enjoys kayaking, self-improvement, and staying up-to-day on current events and ADHD research.

ERIKA LIETZAN, J.D. M.A., is the William H. Pittman Professor of Law & Timothy J. Heinsz Professor of Law at the University of Missouri School of Law. She focuses her scholarship and teaching primarily in the areas of health law and policy, with a special focus on FDA regulation, administrative law, and intellectual property. She has published extensively on federal regulation of biopharmaceutical research, development, and approval, as well as innovation policy. Before joining academia, she practiced law for eighteen years, including eight years as a partner in the food and drug group at Covington & Burling. She has been consistently identified by her peers in private practice as a "Best Lawyer in America" in the categories of FDA law (since 2013) and Biotechnology Law (since 2007).

ANGELA MAHOME, M.D., is the is board-certified in General Psychiatry and Child and Adolescent Psychiatry. Currently, she works in Student Wellness at the University of Chicago and as a consultant for Danville School District 118 in downstate Illinois. Upon graduating from the Medical College of Georgia, she completed her residency and fellowship at the University of Chicago Hospitals. While providing outpatient care, she received numerous invitations from schools to speak to educators about attention-deficit/hyperactivity disorder (ADHD) and while working as the medical director for an inpatient Adolescent Behavioral Health Unit, she gave a presentation to the 256 Chicago Public School nurses on ADHD which was well received.

Mahome has previously served on the ADHD Expert Speaker's Bureau for two major pharmaceutical companies and is currently on the ADDA (Attention-Deficit Disorder Association) medical advisory board. She is a member of the American Academy of Child and Adolescent Psychiatry.

RYAN MCNEIL, PH.D., is an Associate Professor of Internal Medicine, Public Health, and Anthropology at Yale University. Through his community-engaged qualitative and ethnographic research, he examines social, structural, and environmental influences on drug-related harms and the implementation of substance use interventions. His recent work has examined dynamics shaping stimulant- and polysubstance use-related harms, as well as the potential uses of prescription stimulants for addressing stimulant-related harms.

BROOKE MOLINA, PH.D., is professor of psychiatry, psychology, and pediatrics at the University of Pittsburgh and a licensed clinical psychologist. Dr. Molina conducts single- and multi-site study research on the course, causes, and treatments of ADHD and substance use/disorder amongst children and adults with increased risk and typical-healthy populations. She has concentrated on longitudinal studies of individuals with ADHD. Dr. Molina also studies stimulant misuse prevention via development of provider clinical practice strategies and longitudinal study of adolescents and young adults prescribed stimulants in primary care. Her program of research has been federally funded since 1995 including an NIH MERIT award. She has experience working successfully with community health and education providers and community member partnerships. She directs the Youth and Family Research Program at the University of Pittsburgh (yfrp.pitt.edu), sits on multiple journal editorial boards, and is on the board and serves as program chair for the American Professional Society for ADHD and Related Disorders.

KOFI OBENG, diagnosed with attention-deficit/hyperactivity disorder (ADHD) in his late twenties, has been supporting people with ADHD on this journey for most of his adult life. To gain more support for his ADHD and to help others with ADHD, he joined the Attention Deficit Disorder Association (ADDA) in 2019. Shortly after joining, he volunteered to co-facilitate ADDA's African American/Black Diaspora + ADHD Peer Support Group. Volunteering for this leadership position led him to volunteer for several critical projects at ADDA, eventually leading to his hire as ADDA's Executive Director. In this role, he uses his leadership skills, his background in organizational transformation, and insights gained from lived experience, to advance ADDA's mission of helping adults with ADHD discover and reach their potential.

MARK OLFSON, M.D., MPH, the Dollard Professor of Psychiatry, Medicine and Law and Professor of Epidemiology at Columbia University and Research Psychiatrist at New York State Psychiatric Institute, seeks to identify gaps between clinical science and practice in behavioral health care including a focus on improving the treatment and outcome of adults and young people with serious mental illnesses and substance use disorders. He has brought attention to problems in the quality of assessment and management of children and adults with behavioral health disorders including an emphasis on neglected and underserved populations. He has characterized unmet need for mental health services, the flow of patients into mental health care, and evolving national

mental health service practice patterns. Olfson, who reports no conflicts of interest, has received numerous federal and private foundation grants, and has authored over 600 academic papers.

SUNNY PATEL, M.D., MPH, is a child, adolescent, and adult psychiatrist, serving as a Senior Advisor for Children, Youth, and Families at the Substance Abuse and Mental Health Service Administration. Prior to SAMHSA, Patel was appointed a White House Fellow and served at the Department of Homeland Security. He completed specialty fellowship training in child and adolescent psychiatry at NYU and Bellevue Hospital. He trained in adult psychiatry at Cambridge Health Alliance and was a clinical fellow at Harvard Medical School. He received his M.D. from the Mayo Clinic, an M.P.H. from Harvard, and graduated with college and departmental honors from UCLA.

LATASHA SELIBY PERKINS, M.D., is a board-certified family physician practicing in Washington, D.C. and served as the new physician director to the American Academy of Family Physicians Board of Directors (AAFP). She remains active in leadership as AAFP Media Ambassador promoting the voice of the family physician.

She is Assistant Professor at the Georgetown University School of Medicine (SOM), Department of Family Medicine where she is the Course Director of Community Based Learning, and the Chair DC AHEC Primary Care Mentorship Program. Dr. Seliby Perkins works clinically at MedStar Primary Care at Ft. Lincoln Clinic/Georgetown Family Residency Program, where she provides comprehensive care to patients of all ages. She spent 8 years providing care to students at Georgetown University's Student Health Center. She lives in Falls Church, VA with husband, Gilbert, their 4 year old daughter Gaia-Noelle, and niece Deja.

J. RUSSELL RAMSAY, PH.D., ABPP, is a licensed psychologist specializing in the assessment and psychosocial treatment of adult attention-deficit/hyperactivity disorder (ADHD). Before retiring from the University of Pennsylvania in June 2023 to start his independent telepsychology practice,

he was professor of clinical psychology and co-founder and clinical director of PENN's Adult ADHD Treatment & Research Program. He has served terms on the professional advisory boards of the major ADHD organizations and is on the editorial board of the Journal of Attention Disorders. He has lectured internationally and is widely published, including five books on adult ADHD (with #6 due in 2024). His patient guidebook, The Adult ADHD Tool Kit has been published in Spanish, French, Korean and a German translation is in process; it is a recommended adult ADHD self-help book by the Association for Behavioral and Cognitive Therapies. Ramsay is a CHADD Hall of Fame inductee.

LARA ROBINSON, PH.D. MPH, is a Lead Health Scientist with the Child Development and Disabilities Branch in the National Center on Birth Defects and Developmental Disabilities (NCBDDD), Centers for Disease Control and Prevention (CDC). As lead of the Applied Research and Evaluation team, she oversees work on the epidemiology of, research around risk/protective factors, health promotion programs for, and policy/programmatic evaluation of attention-deficit/hyperactivity disorder (ADHD) and Tourette syndrome activities. She received her doctoral degree in Applied Developmental Psychology from the University of New Orleans and her Master of Public Health degree from Tulane University. She also completed postdoctoral integrative research training in integrative children's mental health at the Pennsylvania State University. Robinson is a National Academies Forum on Child Well-Being member. Clinically, she has worked as an Early Intervention evaluator and as a mental health consultant for childcare centers.

JONATHAN RUBIN, M.D., MBA, is the CMO and Senior Vice President of R&D at Supernus Pharmaceuticals, Inc. Before joining Supernus in 2020, Dr. Rubin was CMO of Atentiv from 2018 to 2020, and a consultant to Chondrial Therapeutics from 2017 to 2018. From 2013 to 2017, Rubin was CMO of Alcobra, where he supervised the completion of two Phase III studies in attention-deficit/hyperactivity disorder (ADHD). From 2007 to 2013, Dr. Rubin was Medical Director of Clinical Development and Medical Affairs for Shire Pharmaceuticals, where he supported the company's ADHD portfolio. Prior to Shire, Rubin was in private practice as a Developmental-Behavioral and General Pediatrician for 16 years. He was a pediatric resident at Albert Einstein/Montefiore Hospital and a fellow in ambulatory pediatrics at Boston's Children Hospital. Rubin received his M.D. from the University of Connecticut School of Medicine, his MBA from the Columbia School of Business and his BS in molecular biophysics and biochemistry from Yale University.

JOSEPH SCHATZ, DNP, CRNP, PMHNP-BC, CARN-AP, is a psychiatric/mental health nurse practitioner who has been living with attention-deficit/hyperactivity disorder (ADHD) since (at least) kindergarten (which is when Mrs. M. suggested to his parents that he might benefit from repeating the grade to work on his social skills). He is the Director of Penn Nursing's PMHNP track and treats patients across the lifespan for conditions including ADHD. In his practice, he sees the biggest barriers to effective treatment as failure to recognize/address co-occurring trauma, failure to treat ADHD in individuals with a history of substance use disorder, and failure to diagnose ADHD in adults due to clinician discomfort. Oh, and prior authorizations. Especially prior authorizations.

MARGARET SIBLEY, PH.D., is a Professor of Psychiatry and Behavioral Sciences at the University of Washington School of Medicine and a clinical psychologist at Seattle Children's Hospital. She has authored over 120 scholarly publications on attention-deficit/hyperactivity disorder (ADHD) across the lifespan with a current research portfolio funded by the National Institute of Mental Health and the Institute of Education Sciences. She is an investigator on the Multimodal Treatment of ADHD (MTA) Study, Secretary of the American Professional Society for ADHD and Related Disorders (APSARD), a Professional Advisory Board Member for Children and Adults with Attention Deficit Hyperactivity Disorder (CHADD), the Diagnosis and Screening Subcommittee Chair for the APSARD Guidelines for Adult ADHD, and Associate Editor of the *Journal of Attention Disorders*.

MARTA SOKOLOWSKA, PH.D., is the Deputy Center Director for Substance Use and Behavioral Health in FDA's Center for Drug Evaluation and Research (CDER). She serves as the center's executive-level leader responsible for advancing FDA's public health response to the non-medical use of substances with abuse potential. With expertise in science-based assessment and management of drug abuse risks, Sokolowska advises senior FDA officials on shaping scientific and policy interventions and executing strategies pertaining to the use of controlled substances and behavioral health programs. She joined CDER in 2018 as Associate Director for Controlled Substances in the Office of the Center Director. Prior to joining FDA, Sokolowska held senior clinical and medical leadership roles in the pharmaceutical industry. She earned her doctoral degree in psychology from McMaster University in Canada.

MARY SOLANTO, PH.D., is Professor of Pediatrics and Psychiatry at the Zucker School of Medicine at Hofstra-Northwell (Long Island, NY). Prior to joining Hofstra, she was Director of the attention-deficit/hyperactivity disorder (ADHD) Center at the Mount Sinai School of Medicine and Associate Professor of Psychiatry at NYU. In 2017-2018, Solanto was a Fulbright U.S. Scholar in the Netherlands where she conducted research on treatment of ADHD in college students, Dr. Solanto developed a novel cognitive-behavioral intervention for adults with ADHD, which was the focus of an NIMH-sponsored efficacy study (American Journal of Psychiatry, 2010). With her Co-PI, Dr. Anthony Rostain, Dr. Solanto most recently received NIMH funding to revise, refine, and test the CBT intervention for the needs of college students with ADHD.

BRANDI WALKER, PH.D., is the CEO of Marie Pauline Consulting, LLC, her private practice dedicated to providing educational, clinical, and psychological guidance and expertise to organizations seeking to improve their social climate and enhance their diversity/equity awareness. She is a licensed clinical psychologist, board certified executive leadership coach, diversity/equity trainer, and organizational consultant on mental wellness and strategic planning. Walker is a Howard University and University of Maryland, alumna and a recently retired Army officer and faculty member at Womack Army Medical Center at Fort Liberty, NC. Walker spent the last (7) years working with various hospitals/clinics, and schools conducting research on children with attention-deficit/hyperactivity disorder (ADHD), their family, and various sleep variables and environmental factors. She collaboratively initiated Prince George's County (Maryland) CHADD

Chapter and the Southern Regional Support Center. Additionally, she currently conducts research with the Henry Jackson Foundation.

SARA WEISENBACH, PH.D. ABPP, is the Chief of Neuropsychology at McLean Hospital, a member of the faculty at Harvard Medical School, a board-certified clinical neuropsychologist, and a clinical translational researcher. Her career has been based on improving the quality of life for individuals with cognitive and psychiatric concerns through clinical care and innovation, cutting-edge research, education and mentorship, and service to the fields of Neuropsychology and Geriatric Psychiatry. She has been continuously funded since 2008 (NIH, VA) for her work on depression and cognition during middle-age and late life. Weisenbach earned her Ph.D. in Counseling Psychology from Colorado State University in 2005. She then went on to complete two post-doctoral fellowships; one in Clinical and Research Neuropsychology at University of Michigan and a second Special Fellowship in Geriatrics at the VA Ann Arbor Healthcare System. Weisenbach is a nationally recognized expert in cognitive and emotional health in older adults. She has developed stepped-care models for clinical evaluation of dementia and adult attention-deficit/hyperactivity disorder (ADHD). She is President for the Society for Clinical Neuropsychology of the American Psychological Association and Co-Chair of the Geriatric Mood Disorders Task Group of the National Network of Depression Centers. She regularly serves as a reviewer for peer-reviewed journals and NIH and VA study sections.

ROBIN WEISS, M.D., has followed a long and winding path throughout her medical career. Following a residency in pediatrics at the Residency Program in Social Medicine in the Bronx in 1981, she and her husband ran a pediatric ward on the island of St. Vincent, West Indies. Returning to the U.S., she completed a Robert Wood Johnson Fellowship at The Johns Hopkins School of Medicine, and was lured by the former dean of her medical school, Fred Robbins, to work at the Institute of Medicine. During the eventful years between 1985 and 1991, she became Director of HIV/AIDs activities at the IOM. Later, Weiss did a second residency in Psychiatry at Sheppard Pratt Hospital in Baltimore, and in 1995 established a private practice and became active in state and local health policy. She has published articles on psychiatry, science, and health policy in the New York Times and other publications.

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

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REPORTING AND RESOLUTION

Any violation of this policy should be reported. If you experience or witness discrimination, harassment, or bullying, you are encouraged to make your unease or disapproval known to the individual, if you are comfortable doing so. You are also urged to report any incident by:

- Filing a complaint with the Office of Human Resources at 202-334-3400, or
- Reporting the incident to an employee involved in the activity in which the member or volunteer is participating, who will then file a complaint with the Office of Human Resources.

Complaints should be filed as soon as possible after an incident. To ensure the prompt and thorough investigation of the complaint, the complainant should provide as much information as is possible, such as names, dates, locations, and steps taken. The Office of Human Resources will investigate the alleged violation in consultation with the Office of the General Counsel.

If an investigation results in a finding that an individual has committed a violation, NASEM will take the actions necessary to protect those involved in its activities from any future discrimination, harassment, or bullying, including in appropriate circumstances the removal of an individual from current NASEM activities and a ban on participation in future activities.

CONFIDENTIALITY

Information contained in a complaint is kept confidential, and information is revealed only on a need-to-know basis. NASEM will not retaliate or tolerate retaliation against anyone who makes a good faith report of discrimination, harassment, or bullying.

Updated June 7, 2018

Forum on
DRUG DISCOVERY, DEVELOPMENT, and TRANSLATION

ABOUT THE FORUM

The Forum on Drug Discovery, Development, and Translation (the forum) of the National Academies of Sciences, Engineering, and Medicine (the National Academies) was created in 2005 by the National Academies Board on Health Sciences Policy to foster communication, collaboration, and action in a neutral setting on issues of mutual interest across the drug research and development lifecycle. The forum membership includes leadership from the National Institutes of Health, the U.S. Food and Drug Administration, industry, academia, consortia, foundations, journals, and patient-focused and disease advocacy organizations.

Through the forum's activities, participants have been better able to bring attention and visibility to important issues, explore new approaches for resolving problem areas, share information and find common ground, and work together to develop ideas into concrete actions and new collaborations.

Forum work is based on four thematic priorities:

Spurring INNOVATION and IMPLEMENTATION

Revolutionary advances in biomedical research and technology present new and exciting opportunities for the discovery and development (R&D) of new therapies for patients. The evolution of health care is expanding possibilities for integration of clinical research into the continuum of clinical care and new approaches are enabling the collection of data in real-world settings. Innovative modalities, such as digital health technologies and artificial intelligence applications, can now be leveraged to overcome challenges and advance clinical research. The forum unites key stakeholders to identify opportunities, address bottlenecks, and spur innovation in drug discovery, development, and translation.

Increasing PERSON-CENTEREDNESS and EQUITY

There is much greater awareness around the need for more person-centered and inclusive approaches that prioritize lived experience, equity, and justice in the discovery, development, and translation of new treatments. The forum seeks to center priorities of people living with disease and those who have been traditionally under-represented or excluded from the clinical trials enterprise, advance the science of patient input, and help bring to fruition innovations that better address the needs of patients.

Promoting COLLABORATION and HARMONIZATION

The forum provides a neutral platform for communication and collaboration across sectors and disciplines to better harmonize efforts throughout the drug R&D life cycle. It does this by convening a broad and evolving set of stakeholders to help integrate patients, caregivers, researchers, trialists, community practitioners, sponsors, regulators, payers, patient and disease advocacy groups, and others into the continuum of research and clinical care. The forum also strives to enable shared decision-making and ensure that patients have input into research questions, researchers have insight into clinical practice, and practitioners are engaged in the clinical trials enterprise.

Enhancing the WORKFORCE and INFRASTRUCTURE

The forum has fostered the development of strategies to improve the discipline of innovative regulatory science and continues to focus on building a workforce that is diverse, adaptable, and resilient. Considerable opportunities remain to improve and expand the evolving clinical trials workforce and infrastructure, integrate community-based practices, and engage early-career scientists and clinicians in drug discovery, development, and translation. The forum will continue to anticipate and promote adaptation to changes in the infrastructure of health care delivery.

For more information about the Forum on Drug Discovery, Development, and Translation, please visit at:

NATIONALACADEMIES.ORG/DRUGFORUM

Health and Medicine Division
Board on Health Sciences Policy

NATIONAL ACADEMIES Sciences Engineering Medicine

Forum Membership

Gregory Simon (Co-Chair)
Kaiser Permanente Washington Health Research Institute

Ann Taylor (Co-Chair)
Retired

Barbara E. Bierer
Harvard Medical School

Linda S. Brady
National Institute of Mental Health, NIH

John Buse
University of North Carolina Chapel Hill School of Medicine

Luther T. Clark
Merck & Co., Inc.

Barry S. Coller
The Rockefeller University

Tammy R.L. Collins
Burroughs Wellcome Fund

Thomas Curran
Children's Mercy, Kansas City

Richard T. Davey
National Institute of Allergy and Infectious Diseases, NIH

Katherine Dawson
Biogen

James H. Doroshow
National Cancer Institute, NIH

Jeffrey M. Drazen
New England Journal of Medicine

Steven Galson
Retired

Carlos Garner
Eli Lilly and Company

Sally L. Hodder
West Virginia University

Tesheia Johnson
Yale School of Medicine

Lyric A. Jorgenson
Office of the Director, NIH

Esther Krofah
FasterCures, Milken Institute

Lisa M. LaVange
University of North Carolina Gillings School of Global Public Health

Aran Maree
Johnson & Johnson

Cristian Massacesi
AstraZeneca

Ross McKinney, Jr.
Association of American Medical Colleges

Joseph P. Menetski
Foundation for the NIH

Anaeze C. Offodile II
Memorial Sloan Kettering Cancer Center

Sally Okun
Clinical Trials Transformation Initiative

Arti K. Rai
Duke University School of Law

Klaus Romero
Critical Path Institute

Joni Rutter
National Center for Advancing Translational Sciences, NIH

Susan Schaeffer
The Patients' Academy for Research Advocacy

Anantha Shekhar
University of Pittsburgh School of Medicine

Ellen V. Sigal
Friends of Cancer Research

Mark Taisey
Amgen Inc.

Amir Tamiz
National Institute of Neurological Disorders and Stroke, NIH

Pamela Tenaerts
Medable

Majid Vakilynejad
Takeda

Jonathan Watanabe
University of California Irvine School of Pharmacy and Pharmaceutical Sciences

Alastair J. Wood
Vanderbilt University

Cris Woolston
Sanofi

Joseph C. Wu
Stanford University School of Medicine

Forum Staff

Carolyn Shore, Ph.D.
Forum Director

Kyle Cavagnini, Ph.D.
Associate Program Officer

Noah Ontjes, M.A.
Research Associate

Melvin Joppy
Senior Program Assistant

NATIONAL ACADEMIES Sciences Engineering Medicine

Sponsoring Members of the

National Academies Forum on Drug Discovery, Development, and Translation

Government

Center for Drug Evaluation and Research, FDA
National Cancer Institute, NIH
National Center for Advancing Translational Sciences, NIH
National Institute of Allergy and Infectious Diseases, NIH
National Institute of Mental Health, NIH
National Institute of Neurological Disorders and Stroke, NIH
Office of the Director, NIH

Industry

Amgen Inc.
AstraZeneca
Biogen
Eli Lilly and Company
Johnson & Johnson
Medable
Merck & Co., Inc.
Sanofi
Takeda

Private Foundation

Burroughs Wellcome Fund

Nonprofit Organizations

Association of American Medical Colleges
Critical Path Institute
FasterCures , Milken Institute
Foundation for the National Institutes of Health
Friends of Cancer Research
New England Journal of Medicine

Forum on Neuroscience and Nervous System Disorders

The Forum on Neuroscience and Nervous System Disorders was established in 2006 to provide a venue for building partnerships, addressing challenges, and highlighting emerging issues related to brain disorders, which are common, major causes of premature mortality, and, in aggregate, the largest cause of disability worldwide. The Forum's meetings bring together leaders from government, industry, academia, disease advocacy organizations, philanthropic foundations, and other interested parties to examine significant—and sometimes contentious—issues concerning scientific opportunities, priority setting, and policies related to research on neuroscience and brain disorders; the development, regulation, and use of interventions for the nervous system; and related ethical, legal, and social implications.

Forum members meet several times a year to exchange information, ideas, and differing perspectives. The Forum also sponsors workshops (symposia), workshop proceedings, and commissioned papers as additional mechanisms for informing its membership, other stakeholders, and the public about emerging issues and matters deserving scrutiny. Additional information is available at www.nas.edu/NeuroForum.

MEMBERS

Frances Jensen, MD, *co-chair*
University of Pennsylvania

John Krystal, MD, *co-chair*
Yale University

Rita Balice-Gordon, PhD
Muna Therapeutics

Deanna Barch, PhD
Washington University in St. Louis

Diane Bovenkamp, PhD
BrightFocus Foundation

Katja Brose, PhD
Chan Zuckerberg Initiative

Teresa Buracchio, MD
Food and Drug Administration

Sarah Caddick, PhD
Gatsby Charitable Foundation

Rosa Canet-Avilés, PhD
California Institute for Regenerative Medicine (CIRM)

Maria Carrillo, PhD
Alzheimer's Association

Michael Chiang, MD
National Eye Institute

Tim Coetzee, PhD
National Multiple Sclerosis Society

Beverly Davidson, PhD
Children's Hospital of Philadelphia

Nita Farahany, JD, PhD
Duke University

Eva Feldman, MD, PhD
University of Michigan

Brian Fiske, PhD
The Michael J. Fox Foundation for Parkinson's Research

Joshua Gordon, MD, PhD
National Institute of Mental Health

Morten Grunnet, PhD
Lundbeck

Magali Haas, MD, PhD, MSE
Cohen Veterans Bioscience

Richard Hodes, MD
National Institute on Aging

Stuart Hoffman, PhD
Department of Veterans Affairs

Yasmin Hurd, PhD
Icahn School of Medicine at Mount Sinai

Steven Hyman, MD
Broad Institute of MIT and Harvard

Michael Irizarry, MD
Eisai

George Koob, PhD
National Institute on Alcohol Abuse and Alcoholism

Walter Koroshetz, MD
National Institute of Neurological Disorders and Stroke

Robert Malenka, MD, PhD
Stanford University

Husseini Manji, MD, FRCPC
Oxford University; Duke University; UK Government Mental Health Mission

Hugh Marston, PhD
Boehringer Ingelheim

Bill Martin, PhD
Janssen Research & Development

John Ngai, PhD
National Institute of Health's Brain Research through Advancing Innovative Neurotechnologies (BRAIN®) Initiative

Gentry Patrick, PhD
University of California San Diego

Steve Paul, MD
Karuna Therapeutics

Kathryn Richmond, MBA, PhD
Allen Institute

M. Elizabeth Ross, MD, PhD, FANA
American Neurological Association

Marsie Ross, PharmD
Harmony Biosciences

Katie Sale, BA
American Brain Coalition

Raymond Sanchez, MD
Cerevel Therapeutics

Terrence Sejnowski, PhD
Salk Institute for Biological Studies

Sarah Sheikh, MSc, BMBCh
Takeda

Sarah Shnider, PhD, MSc
One Mind

David Shurtleff, PhD
National Center for Complementary and Integrative Health

John Spiro, PhD
Simons Foundation

Alessio Travaglia, PhD
Foundation for the National Institutes of Health

Nora Volkow, MD
National Institute on Drug Abuse

Doug Williamson, MBChB, MRCPsych
Acadia Pharmaceuticals, Inc

Richard Woychik, PhD
National Institute of Environmental Health Sciences

Stevin Zorn, PhD
MindImmune Therapeutics

Forum Staff

Sheena Posey Norris, MS, PMP
Director, Forum on Neuroscience and Nervous System Disorders

Eva Childers, PhD
Associate Program Officer

Maya Thirkill, MPH
Associate Program Officer

Kimberly Ogun, BS
Senior Program Assistant

Clare Stroud, PhD
Senior Board Director, Board on Health Sciences Policy

Upcoming Events

Exploring the Bidirectional Relationship between Artificial Intelligence and Neuroscience (March 25-26, 2024)

Recent Events

Mitigating Health Disparities in Brain Disorders Starting with Basic Science: A Workshop (2023)

Exploring the Adoption of Implantable Brain Stimulation into Standard of Care for Central Nervous System Disorders: A Workshop (2023)

Addressing Health Disparities in Central Nervous System Disorders: A Virtual Workshop Series (2023)

Toward a Common Research Agenda in Infection-Associated Chronic Illnesses: A Workshop to Examine Common, Overlapping Clinical and Biological Factors (2023) *A collaboration with the Forum on Microbial Threats*

Multimodal Biomarkers for Central Nervous System Disorders: Development, Integration, and Clinical Utility: A Workshop (2023)

Exploring Sleep Disturbance in Central Nervous System Disorders (2022)

Exploring Psychedelics and Entactogens as Treatments for Psychiatric Disorders: A Workshop (2022)

Sponsoring Members of the Forum on Neuroscience and Nervous System Disorders

ACADEMIA

The George & Anne Ryan Institute for Neuroscience at the University of Rhode Island
University of Rhode Island

GOVERNMENT

California Institute for Regenerative Medicine
Department of Veterans Affairs
Food and Drug Administration
National Center for Complementary and Integrative Health
National Eye Institute
National Institute of Environmental Health Sciences
National Institute of Mental Health
National Institute of Neurological Disorders and Stroke
National Institute on Aging
National Institute on Alcohol Abuse and Alcoholism
National Institute on Drug Abuse
National Institutes of Health BRAIN Initiative
National Science Foundation

INDUSTRY

Acadia Pharmaceuticals
Boehringer Ingelheim
Cerevel Therapeutics
Eisai
Harmony Biosciences
Janssen Research & Development, LLC
Karuna Therapeutics
Lundbeck Research USA, Inc
Takeda

NONPROFIT ORGANIZATIONS

Alzheimer's Association
American Brain Coalition
BrightFocus Foundation
Cohen Veterans Bioscience
Foundation for the National Institutes of Health
Michael J. Fox Foundation for Parkinson's Research
National Multiple Sclerosis Society
One Mind
Paul G. Allen Frontiers Group

PRIVATE FOUNDATION

Gatsby Charitable Foundation
Wellcome Trust

PROFESSIONAL SOCIETY

American Neurological Association

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

ROUNDTABLES AND FORUMS

IN THE HEALTH AND MEDICINE DIVISION

nationalacademies.org/HMD

ROUNDTABLES AND FORUMS IN THE HEALTH AND MEDICINE DIVISION:

ADVANCING THE DISCUSSION AND FOSTERING DIALOGUE ON CRITICAL HEALTH TOPICS

The National Academies of | SCIENCES ENGINEERING MEDICINE

The National Academies of Sciences, Engineering, and Medicine ("the National Academies") provide independent, objective analysis and advice to the nation, and conduct other activities to solve complex problems and inform public policy decisions. The National Academies also encourage education and research, recognize outstanding contributions to knowledge, and increase public understanding in matters of science, engineering, and medicine.

The Health and Medicine Division (HMD) is a program unit of the National Academies. The aim of HMD is to help those in government and the private sector make informed health policy decisions by providing evidence upon which they can rely. HMD advises the nation through consensus committees but also provides opportunities for open dialogue on complex and diverse topics through roundtables and forums.

Representatives from government, private businesses, academia, and other stakeholder groups gather regularly on neutral ground in order to identify and discuss contemporary issues of mutual interest and concern. Roundtables and forums cover a range of topics, including health care at the local and global levels, health literacy, health equity, health professional education, obesity solutions, violence prevention, and medical and public health preparedness.

Contact HMD:

HMD-NASEM@nas.edu

nationalacademies.org/HMD

@NASEM_Health

facebook.com/NASEMHealth

ROUNDTABLES AND FORUMS

Roundtables and forums create communal environments to foster dialogue across sectors and institutions. Although roundtables and forums do not produce solutions themselves, they illuminate issues that need to be resolved, and opportunities for further work often develop from their meetings, workshops, and publications. For example, the activities of a roundtable or forum may result in the establishment of separate consensus study committee.

Unlike a consensus committee, which publishes a report with conclusions and recommendations, a roundtable or forum may not issue work with such advice.

ROUNDTABLE AND FORUM MEMBER SELECTION

Usually, roundtable and forum members are selected based on each individual's expertise, but other considerations may be a factor. Since roundtables and forums do not give advice, their membership is not restricted with regard to financial or other types of bias and conflicts of interest.

The membership of a roundtable or forum is approved by the HMD Executive Office and appointed by the chair of the National Academies for three years (or a shorter duration, depending on the activity). Government officials from sponsoring agencies are appointed on an ex officio basis upon the recommendation of their agencies, and the length of their service will match the length of their term in office. Nongovernmental membership appointments to the roundtable or forum may also be considered ex officio if they are by virtue of the office in a professional society, corporation, or other independent organization—particularly if the sponsoring organization chooses the person and office to be on the roundtable or forum.

ROUNDTABLE AND FORUM ACTIVITIES

Roundtables and forums host a number of activities such as discussion meetings, workshops, and symposia. Within the scope of their approved topic, roundtables and forums are self-governing in that, for example, they decide their own agendas for meetings. A chair, who presides at the meetings, is nominated by HMD and appointed by the chair of the National Academies, just as the members are.

Because they do not give advice, roundtables, forums, and their activities are not subject to Section 15 of the Federal Advisory Committee Act, an act that guarantees independence from government interests and necessitates disclosure of all reference materials to the public.

However, roundtable and forum meetings and workshops are announced on the HMD website in advance and are open to the public, except in two cases: if the meeting includes only members and is dedicated to administrative matters, or if the meeting will discuss issues described in U.S. Code Title 5 Section 552(b). Under this law, closed meetings may be held if the discussion delves into such topics as security, privacy, or legal matters.

Roundtables and forums often use authored background papers or workshops to help inform their discussions. These follow the same rules of public access as above. Workshops are organized by planning committees, which may include roundtable or forum members. A roundtable or forum member may also serve as a speaker at a workshop.

PLANNING COMMITTEES

Planning committees develop workshop agendas for roundtables and forums and are not subject to the same rules and limitations placed on study committees. However, all planning committee members must complete bias and conflict of interest forms, which ask about affiliations and opinions, and they must also participate in bias and conflict of interest discussions.

Potential sources of bias usually relate to individuals holding positions that arise from the close identification or association with a particular point of view.

Most, if not all, planning committee members will have some level of intellectual bias in relation to a particular topic, but those biases should be declared. An ideal planning committee will represent a balance of positions. In the face of evidence, an ideal member of a planning committee will be able to engage in dialogue with others and consider adopting a new point of view.

INNOVATION COLLABORATIVES

Roundtables and forums may establish innovation collaboratives—also called action collaboratives— to engage participants with similar interests and responsibilities in cooperative activities to advance aspects of each roundtable or forum's statement of task. These ad hoc convening activities foster information sharing and collaboration toward roundtable and forum aims as well as evaluation on progress on findings and recommendations highlighted in prior National Academies reports.

PUBLICATIONS

If a roundtable or forum holds a workshop, this workshop may result in a Proceedings of a Workshop or a Proceedings of a Workshop—in Brief, published by the National Academies Press (NAP), the publishing arm of the National Academies. Workshop proceedings are typically authored by some combination of HMD staff and hired consultants, serving as rapporteurs.

Like consensus committee reports, workshop proceedings are reviewed by an independent panel of experts, which may include roundtable and forum members. The Proceedings may not be transmitted to a sponsor or released to the public until review has been completed to the satisfaction of the Report Review Committee of the National Academies and the HMD Executive Office.

Other types of publications may develop from roundtables and forums. Independent, cooperative projects between sponsors and members, spin-off studies, and individually authored papers are some of the most common projects that grow out of roundtable and forum discussions. For instance, discussion papers and commentaries (collectively termed Perspectives) are individually

authored with the goal of further elucidating topics covered in roundtable or forum discussions. Small groups of roundtable or forum members, or individual members, may author a discussion paper or commentary to offer a particular perspective on a topic. Though distributed by the National Academy of Medicine (NAM), the views in the discussion papers and commentaries represent only those of the authors, not necessarily of the authors' organizations, the NAM, or the National Academies. These papers are not subject to the review procedures of the National Academies. All discussion papers and commentaries are designed to be shared publicly.

ROLE OF HMD STAFF

Each roundtable and forum is assisted in its work by a team of highly qualified staff members. Staff assist with research contributing to meetings and workshops, and they may act as the authors of a workshop proceedings. As with any HMD activity, staff may not insert their personal opinions into the publication. Overall, HMD staff is responsible for ensuring that the institutional procedures are followed and that the roundtable or forum stays within its budget.

COMMUNICATIONS

Although roundtables and forums do not issue advice or recommendations, it is important to emphasize communications to stimulate further discussion, attract workshop attendees, hold successful workshops, issue informative workshop proceedings, and inform a broader readership.

To help with these goals, HMD and the National Academies have a number of offices focused on communications support:

The HMD Office of Communications is responsible for HMD's report production functions as well as communications strategies and activities. One of its primary objectives is to communicate effectively the antive messages of HMD activities and publications to its key audiences.

The Office of Congressional and Government Affairs is responsible for dissemination and outreach to congressional members and staffs. This may include congressional briefings and testimonies.

The Office of News and Public Information (ONPI) is the liaison between the National Academies and the news media and general public. ONPI should be informed of substantive conversations with the news media, especially if there is a problem.

The NAP website (nap.edu) makes all National Academies publications available online. All publications are free in PDF format to the public. As volunteers, roundtable and forum members receive a 25 percent discount on all books purchased from the NAP.

Our ROUNDTABLES AND FORUMS

FOOD FORUM

Sylvia Rowe, Chair
Heather Cook, Director

Established in 1993, the Food Forum convenes scientists, administrators, and policymakers from academia, government, industry, and public sectors on an ongoing basis to discuss problems and issues related to food, food safety, and regulation. The forum provides a mechanism for these diverse groups to explore possible approaches for addressing food and food safety problems and issues surrounding the often complex interactions among industry, academia, regulatory agencies, and consumers.

FORUM ON AGING, DISABILITY, AND INDEPENDENCE

Stephen Ewell and Rebecca Jackson Stoeckle, Co-Chairs
Tracy Lustig, Director

The Forum on Aging, Disability, and Independence fosters dialogue and addresses issues of interest and concern related to aging and disability. This includes aging and the related disabling conditions that can occur, as well as aging with an existing disability. The forum seeks to promote bridging of the research, policy, and practice interests of the aging and disability communities to accelerate the transfer of research to practice and identify levers that will effect change for the benefit of all. Of particular concern is promoting healthy aging, independence, and community living for older adults and people with disabilities. This is a joint activity of HMD and the Division of Behavioral and Social Sciences and Education.

FORUM FOR CHILDREN'S WELL-BEING: PROMOTING COGNITIVE, AFFECTIVE, AND BEHAVIORAL HEALTH FOR CHILDREN AND YOUTH

Cheryl Polk and David W. Willis, Co-Chairs
Erin Kellogg, Director

Cognitive, affective, and behavioral disorders incur high psychosocial and economic costs for the young people who experience them, their families, and the communities in which they live, study, and will work. The Forum for Children's Well-Being aims to inform a forward-looking agenda for building a stronger research and practice base around the development and implementation of programs, practices, and policies to promote the health and well-being of all children, including those with disabilities. Forum members engage in dialogue and foster partnerships to connect the prevention, treatment, and implementation sciences with the places where children are seen and cared for, including health care settings, schools, social service and child welfare agencies, and the juvenile justice system. This is a joint activity of HMD and the Division of Behavioral and Social Sciences and Education.

FORUM ON DRUG DISCOVERY, DEVELOPMENT, AND TRANSLATION

Robert Califf and Gregory Simon, Co-Chairs
Carolyn Shore, Director

The Forum on Drug Discovery, Development, and Translation was created in 2005 by the Board on Health Sciences Policy to provide a unique platform for dialogue and collaboration among thought leaders and stakeholders in government, academia, industry, foundations, and patient advocacy with an interest in improving the system of drug discovery, development, and translation. The forum brings together leaders from private sector sponsors of biomedical and clinical research, federal agencies sponsoring and regulating biomedical and clinical research, the academic community, and patients. The forum has identified four core components of translational science across this continuum that serve as thematic pillars to frame the forum's focus areas and activities: (1) Innovation and the Drug Development Enterprise; (2) Science Across the Drug Development Lifecycle (Basic, Translational, and Regulatory Sciences); (3) Clinical Trials and Clinical Product Development; and (4) Infrastructure and Workforce for Drug Discovery, Development, and Translation.

FORUM ON MEDICAL AND PUBLIC HEALTH PREPAREDNESS FOR DISASTERS AND EMERGENCIES

Suzet McKinney and Dan Hanfling, Co-Chairs
Scott Wollek and Lisa Brown, Co-Directors

The Forum on Medical and Public Health Preparedness for Disasters and Emergencies was established in September 2007 and provides a neutral venue for broad-ranging discussions that serve to facilitate coordination and cooperation among public and private stakeholders and enhance the nation's medical and public health preparedness for, response to, and recovery from disasters and other emergencies. The forum also serves as a a catalyst for collaboration among voluntary public–private partners; raises attention and visibility to important preparedness, response, and recovery issues; explores new approaches for identifying and resolving challenges; sets the stage for future policy action; and elevates the understanding of medical and public health preparedness among the broader research, public policy, and practice communities.

FORUM ON MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Margarita Alegria and Howard Goldman, Co-Chairs
Alexandra Andrada, Director

The Forum on Mental Health and Substance Use Disorders, launched in early 2019, provides a structured environment and neutral venue to discuss data, policies, practices, and systems that affect the diagnosis and provision of care for people with mental health and substance use disorders. Forum participants engage in dialogue on a range of issues, such as facilitating access to care services in various settings; coordination and integration of services in primary and specialty health care delivery systems; advancing patient-centered care; promising strategies to translate knowledge to practice and to monitor implementation; innovative practices to facilitate and optimize data collection, integration, and use; and improving care spanning the medical, mental health and substance use disorder workforce and care delivery systems. Forum sponsors include federal agencies, health professional associations, addiction treatment providers, pharmaceutical manufacturers, and other public and private sector organizations.

FORUM ON MICROBIAL THREATS

Peter Daszak, Chair;
Kent E. Kester and Rima F. Khabbaz, Vice Chairs
Julie Liao, Director

The Forum on Microbial Threats was created in 1996 at the request of the U.S. Centers for Disease Control and Prevention and the National Institutes of Health to provide a structured opportunity for discussion and scrutiny of critical, and possibly contentious, scientific and policy issues related to infectious disease research and the prevention, detection, surveillance, and responses to emerging and reemerging threats in humans, plants, and animals as well as the microbiome in health and disease. The forum brings together leaders from government agencies, industry, academia, nonprofit and philanthropic organizations, facilitating cross-sector dialogue and collaboration through public debate and private consultation, to stimulate original thinking about the most pressing issues across the spectrum of microbial threats.

FORUM ON NEUROSCIENCE AND NERVOUS SYSTEM DISORDERS

Frances Jensen and John Krystal, Co-Chairs
Clare Stroud, Director

The Forum on Neuroscience and Nervous System Disorders was established in 2006 to provide a venue for building partnerships, addressing challenges, and highlighting emerging issues related to brain disorders, which are common, major causes of premature mortality, and, in aggregate, the largest cause of disability worldwide. The Forum's meetings bring together leaders from government, industry, academia, disease advocacy organizations, and other interested parties to examine significant—and sometimes contentious—issues concerning scientific opportunities, priority setting, and policies related to research on neuroscience and brain disorders; the development, regulation, and use of interventions for the nervous system; and related ethical, legal, and social implications.

FORUM ON REGENERATIVE MEDICINE

Timothy Coetzee and Katherine Tsokas, Co-Chairs
Sarah Beachy, Director

The Forum on Regenerative Medicine provides a convening mechanism for interested parties from academia, industry, government, patient/provider organizations, regulators, foundations, and others to discuss difficult issues in a neutral setting. The overall goal is to engage in dialogue that addresses the challenges facing the application of, and the opportunities for, regenerative medicine to improve health through the development of effective new therapies. The forum identifies potential barriers to scientific and therapeutic advances and discusses opportunities to facilitate more effective partnerships among key stakeholders. The forum examines the impact of current policies on the discovery, development, and translation of regenerative medicine therapies and addresses the unique challenges of identifying, validating, and bringing regenerative medicine applications to market. Ethical, legal, and social issues posed by regenerative medicine advances are also explored.

GLOBAL FORUM ON INNOVATION IN HEALTH PROFESSIONAL EDUCATION

Patrick DeLeon and Zohray Talib, Co-Chairs
Patricia Cuff, Director

The Global Forum on Innovation in Health Professional Education brings together stakeholders from multiple nations and professions to network, discuss, and illuminate issues within health professional education. Currently, there are over 55 appointed members to the Forum who are academic experts and health professionals representing 18 different disciplines from 8 developed and developing countries. Of these members, 46 are sponsors. Members of the forum gather twice a year to attend forum-sponsored events that address critical issues within the education to practice continuum. Topics for these activities have included discussions on financing health professional education; addressing the social determinants of health; and ensuring a mentally and physically stable health workforce.

NATIONAL CANCER POLICY FORUM

Edward Benz, Jr., Chair
Sharyl Nass and Erin Balogh, Co-Directors

The National Cancer Policy Forum serves as a trusted venue in which experts can work collaboratively to identify emerging high-priority policy issues in cancer research and care and to examine those issues through convening activities that promote discussion about opportunities for action. The forum provides a continual focus within the National Academies on cancer, addressing issues in science, clinical medicine, public health, and public policy that are relevant to the goal of reducing the cancer burden, through prevention and by improving the care and outcomes for those diagnosed with cancer. Forum activities inform stakeholders about critical policy issues through published proceedings and often inform consensus committee studies. The forum has members with a broad range of expertise in cancer, including patient advocates; clinicians; and basic, translational, and clinical scientists. Members represent patients, federal agencies, academia, professional organizations, nonprofits, and industry.

ROUNDTABLE ON ENVIRONMENTAL HEALTH SCIENCES, RESEARCH, AND MEDICINE

Kathleen Stratton, Director

The Roundtable on Environmental Health Sciences, Research, and Medicine was organized in 1988 to provide a mechanism for parties interested in environmental health from the academic, industrial, and federal research perspectives to meet and discuss sensitive and difficult environmental health issues of mutual interest in a neutral setting. Since its inception, the roundtable has addressed current and emerging issues in environmental health through discussions related to the state of the science, research gaps, and policy implications. The roundtable has moved toward an increasingly global perspective in its discussions on the UN Sustainable Development Goals, the relationship between trade and health, and corporate social responsibility in environmental health. The roundtable is currently focused on issues of domestic and international importance, such as climate change, sustainable drinking water, transportation–related energy use, and environmental health decision making.

ROUNDTABLE ON GENOMICS AND PRECISION HEALTH

W. Gregory Feero and Michelle Ann Penny, Co-Chairs
Sarah Beachy, Director

The Roundtable on Genomics and Precision Health provides both a mechanism and a venue for interested parties from government, academia, industry, and other stakeholder groups to discuss global issues of mutual interest and concern regarding the translation of genomic research findings for medicine and health in a neutral setting. The purpose of the roundtable is to foster dialogue across sectors, as well as to illuminate and scrutinize critical scientific and policy issues in which roundtable engagement will help further the field. The roundtable explores strategies for improving health through the translation of genomics and genetics research findings into medicine, public health, education, and policy. Current areas of emphasis include precision therapeutics; clinical implementation of genomic medicine; health care disparities related to the introduction of a new technology; health information technology and digital health; use of genomic information for health care decision making; use of genomic information and data science to generate knowledge for clinical practice and research; education; and ethical, legal, and social issues.

ROUNDTABLE ON HEALTH LITERACY

Lawrence G. Smith, Chair
Rose M. Martinez, Acting Director

The Roundtable on Health Literacy envisions a society in which the demands of the health and health care systems respect and align with people's skills, abilities, and values. The mission of the roundtable is to inform, inspire, and activate a wide variety of stakeholders to support the development, implementation, and sharing of evidence-based health literacy practices and policies, with the goal of improving the health and well-being of all people. In order to accomplish its mission, the roundtable brings together leaders from academia, industry, government, foundations and associations, and patient and consumer groups to meet in a neutral setting in order to discuss complex issues regarding health literacy research, practice, and strategies for promoting health literacy through mechanisms and partnerships in both the public and the private sectors.

ROUNDTABLE ON OBESITY SOLUTIONS

Nicolaas Pronk, Chair; Christina Economos and Ihuoma Eneli, Vice Chairs
Heather Cook, Director

The Roundtable on Obesity Solutions engages leadership from multiple sectors to solve the obesity crisis. Many sectors have recognized the need for action, and a number of groups have formed across the country to tackle specific aspects of the epidemic. Nonetheless, a significant gap exists between what we have learned about obesity solutions and the implementation of those solutions. Through meetings, public workshops, background papers, and innovation collaboratives, the roundtable provides a trusted venue for accelerating the discussion, development, and implementation of multisectoral collaborations and policy, as well as environmental and behavioral initiatives, that will reduce the prevalence and adverse consequences of obesity and eliminate obesity-related health disparities.

ROUNDTABLE ON POPULATION HEALTH IMPROVEMENT

Raymond J. Baxter and Kirsten Bibbins-Domingo, Co-Chairs
Alina Baciu, Director

The Roundtable on Population Health Improvement brings together multiple sectors and disciplines to broaden the national conversation about the factors that shape our health and to support cross-sector relationships and engagement to transform the conditions for health across US communities. By hosting workshops, spurring individually-authored papers, and organizing action collaboratives, the roundtable engages members and outside experts, practitioners, and stakeholders around models, best practices, and other evidence about actions that will contribute to building a strong, healthy, and productive society that cultivates human capital and equal opportunity. The roundtable has explored a range of connected issues including collaboration between the education and health sectors, partnerships between faith-based and health sector entities, the shifting definitions of value that are helping reorient investments in the health care and business sectors toward health and well-being, and the nature and needs of the population health workforce, broadly conceived.

ROUNDTABLE ON THE PROMOTION OF HEALTH EQUITY

Kat Anderson, Director

The Roundtable on the Promotion of Health Equity serves as the conveners of the nation's experts in health disparities and health equity, with the goal of raising awareness and driving change. The roundtable promotes health equity and the elimination of health disparities by: (1) advancing the visibility and understanding of inequities in health and health care among racial and ethnic subpopulations; (2) amplifying research, policy, and community centered programs; and (3) catalyzing the emergence of new leaders, partners, and stakeholders.

ROUNDTABLE ON QUALITY CARE FOR PEOPLE WITH SERIOUS ILLNESS

Peggy Maguire and James A. Tulsky, Co-Chairs
Laurie Graig, Director

The Roundtable on Quality Care for People with Serious Illness, which launched in mid-2016, works to foster an ongoing dialogue about critical policy and research issues to accelerate and sustain progress in care for people of all ages with serious illness. Inspired by previous work at the National Academies, including the 2014 Institute of Medicine report Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life, the roundtable convenes key stakeholders to focus on five priority areas: (1) delivery of person-centered, family-oriented care; (2) communication and advance care planning; (3) professional education and development; (4) policies and payment systems; and (5) public education and engagement. Roundtable membership includes patient advocates, health care professional organizations, health care providers and insurers, foundations, federal agencies, researchers, and others interested in the topic.

MAKING A DIFFERENCE

Our convening activities bring together stakeholders from across the health spectrum, creating a communal environment to explore complex health topics and work toward shared understanding.

INFLUENCE
Policies & Programs

Our work can inform policy and legislation; programmatic planning, direction, and budgets; educational initiatives, such as curricula and training programs; and other activities.

FOSTER
Relationships & Collaboration

By bringing together a diverse group of participants around a particular topic, our activities foster new professional relationships, facilitate cross-sector collaborations, and enable professional development and networking, including the cultivation of new leaders.

INSPIRE
New Ideas & Shape the Field

Our work can advance and shape the field by framing issues and shining a light on important topics, and by generating novel approaches to overcome existing challenges, spurring progress and inspiring action.

Impact Highlights from our Roundtables and Forums

INFLUENCE

Policies & Programs

A January 2015 report issued by Senator Lamar Alexander and Senator Richard Burr, "Innovation for Healthier Americans: Identifying Opportunities for Meaningful Reform to Our Nation's Medical Product Discovery and Development," cited a workshop series of the Forum on Drug Discovery, Development, and Translation addressing clinical trials, which began in 2008, as a foundational resource in identifying and addressing the challenges facing the U.S. clinical trials enterprise. The report highlights concepts Congress might consider to better align public policy to support medical innovation and patient access to new medicines and technologies. One key concept explored in the report is the modernization of clinical trials.

FOSTER

Relationships & Collaboration

The Global Genomic Medicine Collaborative (G2MC), an action collaborative launched in 2014 under the auspices of the Roundtable on Genomics and Precision Health, was incorporated as a 501(c)3 nonprofit organization and obtained administrative support provided by the Global Alliance for Genomics and Health (GA4GH) between 2016 and 2017. During their time as an action collaborative, G2MC hosted three international meetings (in Washington DC, Singapore, and Athens), bringing together more than 25 countries to work towards creating a global toolbox for genomic medicine implementation; facilitating collaborations that could enable effective implementation; and discussing solutions for obstacles encountered during implementation. As a result of the collaborative's work, participants have published papers in journals such as Science Translational Medicine and began hosting virtual Grand Rounds on topics related to genetics education. G2MC currently has six working groups including Education; Evidence; IT/Bioinformatics, National Programs and Implementation; Pharmacogenomics, and Policy, and has hosted additional meetings to convene more than 40 countries in Durham, NC, and Cape Town, South Africa.

INSPIRE

New Ideas & Shape the Field

Nemours Children's Health System published a white paper, "State Quality Rating and Improvement Systems: Strategies to Support Achievement of Healthy Eating and Physical Activity Practices in Early Care and Education Settings," in June 2016, focusing on four strategies to prevent childhood obesity: healthy eating, breastfeeding, physical activity, and limited screen time (referred to as "HEPA"). The Roundtable on Obesity Solutions' Early Care and Education (ECE) Innovation Collaborative, whose members include researchers, practitioners, and policy makers with expertise in ECE or childhood obesity prevention, identified the need for the study and served as the advisory group for this project. Throughout the project, ECE IC members provided input on key deliverables during their quarterly meetings. The goal of the study was to measure the extent to which states with Quality Rating Improvement Systems are using specific implementation strategies to promote HEPA practices in ECE settings.

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Forum on Drug Discovery, Development, and Translation
Forum on Neuroscience and Nervous System Disorders

Adult Attention-Deficit/Hyperactivity Disorder (ADHD): Diagnosis, Treatment, and Implications for Drug Development

Selected Readings

ADHD Diagnosis

Empirically-informed guidelines for first-time adult ADHD diagnosis | Sibley, 2021

Healthcare provider perspectives on diagnosing and treating adults with ADHD | Adler et al., 2019

European Consensus Statement on diagnosis and treatment of adult ADHD | Kooij et al., 2019

Contextual Factors Relevant to Suspected Late-Onset ADHD | Mitchell et al., 2019

ADHD in Different Populations

ADHD in girls and women | Chronis-Tuscano, 2022

Trends in prevalence and incidence of ADHD among adults and children of different racial and ethnic groups | Chung et al., 2019

ADHD and Public Health

Quality care for adults with ADHD in primary care | Callen et al., 2023

CDC Morbidity and Mortality Weekly Report: Trends in stimulant prescription fills in US among commercially insured children and adults | Danielson et al., 2023

The ADHD drug shortage is causing real pain | Szalavitz, 2023

The World Federation of ADHD international consensus statement | Faraone, 2021

Emerging ADHD Treatment

Akili's therapeutic video game improves ADHD symptoms in 83% of adults: study | Park, 2023

New directions in psychiatric drug development | Brady et al., 2023

Extended-Release Viloxazine Compared with Atomoxetine for ADHD | Price and Price, 2023

ADHD Intersection with Opioids and Medication Misuse

- Stimulant Treatment for ADHD: Not Exactly Opioids 2.0, But Close? | Truncali et al., 2023
- Prescription stimulant use during long-term opioid therapy | Scherrer et al., 2023
- Prescription Stimulant Misuse Among Youth and Young Adults | SAMHSA, 2021
- Prevalence of and factors associated with long-term concurrent use of stimulants and opioids among adults with ADHD | Wei, 2018
- Stimulant ADHD medication and risk for substance abuse | Chang et al., 2014

Please contact project staff if you run into access issues.