

ADVANCES IN PSYCHIATRY

Francis S. Lee, MD, PhD
 Psychiatrist-in-Chief
 NewYork-Presbyterian/
 Weill Cornell Medical Center
 fslee@med.cornell.edu

Jeffrey A. Lieberman, MD
 Psychiatrist-in-Chief
 NewYork-Presbyterian/
 Columbia University
 Medical Center
 Director, New York State
 Psychiatric Institute
 jl2616@cumc.columbia.edu

Philip J. Wilner, MD, MBA
 Senior Vice President and
 Chief Operating Officer
 NewYork-Presbyterian
 Westchester Division
 pwilner@med.cornell.edu

Dr. Francis Lee Named Chair of Psychiatry at Weill Cornell Medicine

Francis S. Lee, MD, PhD, has been named Chair of the Department of Psychiatry at Weill Cornell Medicine and Psychiatrist-in-Chief at NewYork-Presbyterian/Weill Cornell Medical Center, effective July 1. Dr. Lee, a leading physician-scientist whose research focuses on anxiety disorders, succeeds **Jack D. Barchas, MD**, an early mentor of Dr. Lee who has served as chair of the department for 25 years and remains on faculty. “It is a great honor and will be a great challenge to succeed someone as accomplished as Dr. Barchas, who has had such a powerful impact on the department,” says Dr. Lee. “To be able to build upon what he has established is one of my greatest joys.”

As chair, Dr. Lee oversees one of the largest academic psychiatric programs in the country, with more than 300 inpatient beds and numerous outpatient programs across two campuses – NewYork-Presbyterian/Weill Cornell and NewYork-Presbyterian Westchester Division in White Plains, NY. Dr. Lee will administer a psychiatric program with 600 faculty members practicing in a range



Dr. Francis S. Lee

of psychological health areas – mood disorders, psychotic disorders, eating disorders, personality disorders, addiction, ADHD, autism spectrum disorders, and neuropsychology.

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NewYork-Presbyterian Psychiatry
 ranks #3 in the nation.

Promoting New Directions in Suicide Prevention

Suicide rates have been rising in nearly every state, and in 2016, nearly 45,000 Americans died by suicide according to the Centers for Disease Control and Prevention. Indeed, the recent publicity surrounding celebrity suicides has drawn greater attention to this growing public health crisis. “As someone who has worked in the field of suicide prevention for so long and has seen so many suicidal people, it is still

heartbreaking every time I hear someone has died by suicide,” says **Barbara H. Stanley, PhD**, Professor of Medical Psychology in the Department of Psychiatry at Columbia University Irving Medical Center, and Research Scientist in Molecular Imaging and Neuropathology at the New York State Psychiatric Institute.

“If you look at the 10 leading causes of death over the last two decades, all have either gone down in their rates or, at worst, stayed the same – except for suicide, which has increased dramatically,” says Dr. Stanley. “We don’t yet have a handle on why this is occurring. The only thing that we can say is that whatever treatments we have, up to this point, are either not fully disseminated or are imperfect in their capacity to help people.

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— Dr. Barbara H. Stanley

Dr. Francis Lee Named Chair of Psychiatry at Weill Cornell Medicine *(continued from page 1)*

Encompassing multiple renowned research institutes, the Department of Psychiatry includes the Sackler Institute for Developmental Psychobiology, Weill Cornell Institute of Geriatric Psychiatry, DeWitt Wallace Institute for the History of Psychiatry, and the Center for Autism and the Developing Brain – a collaborative program between NewYork-Presbyterian, Weill Cornell Medicine, and Columbia University Vagelos College of Physicians and Surgeons.

“Dr. Lee is an exceptional leader in the Department of Psychiatry whose research and clinical innovations have propelled the field and inspired new psychiatric approaches to benefit patients,” says **Augustine M.K. Choi, MD**, the Stephen and Suzanne Weiss Dean of Weill Cornell Medicine. “He is an outstanding physician, pioneering scientist, and accomplished educator. I am thrilled Dr. Lee will continue to advance our efforts to provide the best, most compassionate care for our patients.”

“We congratulate Dr. Lee on his new roles at NewYork-Presbyterian and Weill Cornell Medicine,” says **Steven J. Corwin, MD**, President and CEO of NewYork-Presbyterian. “An accomplished researcher, talented educator, and skilled clinician, Dr. Lee is committed to the mental health and well-being of our patients. His pioneering research is paving the way for new, innovative treatments for anxiety disorders, and we look forward to the continued impact his work will have on patients and the field of psychiatry.”

In his new role, Dr. Lee plans to further develop the department’s

expertise in psychotherapy, molecular neurobiology, and circuit-based neuroscience, among other research areas. “My vision is to capitalize on our strengths in order to maintain the department’s national presence, not only as a leader in education, but also in our exceptional clinical care delivery and groundbreaking research,” says Dr. Lee, who is the Mortimer D. Sackler, M.D. Professor of Molecular Biology in Psychiatry and a Professor of Psychiatry, Pharmacology and Neuroscience at Weill Cornell Medicine, as well as Research Co-Director of the NewYork-Presbyterian Youth Anxiety Center.

About Dr. Francis Lee

Dr. Lee earned his bachelor’s degree with highest honors from Princeton University and his medical degree and a doctorate from the University of Michigan. Completing psychiatry residency training at the Payne Whitney Clinic at NewYork-Presbyterian/Weill Cornell Medical Center, he then went on to pursue postdoctoral training in molecular neuroscience at the Skirball Institute of Biomolecular Medicine at New York University Langone Medical Center and the University of California, San Francisco.

Dr. Lee joined the Weill Cornell Medicine faculty in 2002 as an Assistant Professor of Psychiatry and of Pharmacology. In 2011, he was named Vice Chair for Research in the Department of Psychiatry and has served as Interim Director of the Sackler Institute for Developmental Psychobiology since 2016.

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A Legacy of Accomplishment

In June 2017, **Jack D. Barchas, MD**, stepped down as Chairman of the Department of Psychiatry at Weill Cornell Medicine, a position he held for 25 years. Dr. Barchas, who continues as a faculty member of the department, became Chairman and Psychiatrist-in-Chief at NewYork-Presbyterian/Weill Cornell Medical Center in 1993. During his tenure, Dr. Barchas integrated the Manhattan and Westchester campuses, thereby advancing the excellence of both programs and establishing a comprehensive and nationally recognized psychiatric program. The Weill Cornell psychiatric program, which integrates developmental neurobiology, developmental psychobiology, and multiple treatment approaches, is respected for its excellence in clinical care, research, and education. NewYork-Presbyterian Westchester Division is the only freestanding psychiatric hospital in America that has achieved Planetree designation in recognition for the outstanding work it does to support and enhance the patient experience.

An outstanding clinician and researcher, Dr. Barchas is noted for basic, translational, and clinical discoveries regarding neurotransmitters and hormones such as serotonin, melatonin, epinephrine, norepinephrine, dopamine, and peptides including some endorphins. His work focuses on how behavior changes neurochemistry and how those changes influence subsequent behavior.

As a medical student, he provided the first demonstration that neurotransmitters are differentially altered by stress.



Dr. Jack D. Barchas

Later research with extraordinary trainees and colleagues focused on their formation, metabolism, molecular genetics, localization, and roles in behavior and mental disorders. Dr. Barchas is respected for his efforts in developing talent at all levels, and has authored more than 300 publications and served as a contributing editor to an influential textbook of psychopharmacology.

Dr. Barchas has earned recognition from professional societies in psychiatry, psychology, and neuroscience ranging from biological to psychosocial areas, including honorary membership in

the American Psychoanalytic Association. He received the Sarnat International Award in Mental Health from the National Academy of Medicine (formerly the Institute of Medicine) for his contributions to the study of neurobiology and emotional behavior; the Walsh McDermott Medal for service; and the Distinguished Alumni Annual Award from Yale’s Department of Psychiatry. Dr. Barchas is a founding member of the Scientific Board of the Brain and Behavior Research Foundation, chairing its Distinguished Investigator and Goldman-Rakic Award Committees.

Dr. Barchas served as President of the New York Psychiatric Society and was the first Chair of the MacArthur Network on Depression. He served as Chair of the Board of Directors of the New York Academy of Medicine for four years, receiving its award for distinguished service and its Salmon Medal for Research.

Promoting New Directions in Suicide Prevention (continued from page 1)

Also, there is a large number of people who are not within the healthcare system. We need to find better ways to identify people at risk and provide better services to help them cope with the multiple issues that can lead to suicide.”

Throughout her career, Dr. Stanley has done just that, serving as Principal Investigator on several National Institute of Mental Health and foundation grants studying clinical and neurobiological factors and intervention strategies related to suicidal behavior. Her work ranges from basic and neuroscience research to implementation science, the study of methods to promote the integration of research findings and evidence into healthcare policy and practice.

“Earlier thinking in the field was that suicidal behavior only occurs in the context of a particular disorder – like depression or bipolar disorder – and when you treat the disorder, the suicidality goes away,” says Dr. Stanley. “The newer thinking is that there are specific deficits that are related to suicidal behavior, above and beyond the primary diagnosis. To that end, we’ve been examining the underlying neurobiology of suicidal behavior. But that has only gotten us partway there.”

Understanding Suicidal Subtypes

As a member of the Conte Translational Neuroscience Center for the Study of Antecedents of Suicidal Behavior at Columbia, Dr. Stanley joins a team of clinicians and scientists who are pursuing investigations into brain functioning to understand the causes of suicidal behavior. One of Dr. Stanley’s projects focuses on the role of suicidal subtypes.

“Predicting who will engage in suicidal behavior remains challenging,” says Dr. Stanley. To help ascertain suicidal risk, she collaborated on a smartphone app that “pings” the phones of patients six times a day over the course of a week to ask them to rate their level of suicidality.

“These graphs are quite dramatic,” says Dr. Stanley. “For some people, suicidal ideation is a bit elevated and constantly flattened. And then there are others where it looks like a sawtooth pattern throughout the week. I started thinking, are there important differences associated with patterns of suicidal thinking? Does the biology associated with these patterns differ?”

In a study published in the August 2017 issue of *Molecular Psychiatry*, Dr. Stanley and Columbia researchers hypothesized that the pattern of suicidal thinking helps distinguish at least two suicidal subtypes. “We examined the cortisol response and found that people who were more stress responsive as indicated by a greater cortisol response to a psychosocial stress test, Trier Social Stress Test (TSST), were more likely to respond to minor stressors in their lives with an increase in suicidal ideation. These individuals report sudden increases in suicidal thoughts following stressful life events. With this pattern of suicidal thinking they are at higher risk of less planned suicidal behavior and limiting access to means might be particularly important for them.”

“We found that individuals exhibiting a lower stress response were more likely to report persistent thoughts of suicide. We think this pattern is linked to depressive affect and is more likely to result in more carefully planned suicidal behavior,” says Dr. Stanley. “In addition to being one of the criteria for diagnosing major depression, statistical modeling suggests that major depressive episodes play a role in the development of suicidal thinking.”



Dr. Barbara H. Stanley

While the investigators have described two suicidal subtypes that reflect different patterns of suicidal thinking and stress responsivity, they suspect there are others. “These patterns might overlap or change over time in the same way that psychological and physiological responses to stress alter over the lifespan,” says Dr. Stanley.

In another study published in the April 2018 issue of the *Journal of Affective Disorders*, Dr. Stanley and her colleagues studied 35 individuals with major depressive disorder and 23 healthy volunteers, aged 18 to 65 years old, using the TSST; salivary cortisol was measured at six time-points before and during the test. The researchers found that the participants with brief suicidal ideation had greater cortisol response compared to those with longer/continuous ideation and healthy volunteers, even after controlling for relevant covariates. They concluded that hyper-responsiveness of hypothalamic-pituitary-adrenal (HPA)-axis to social stress is associated with brief suicidal ideation, possibly defining a pathway for further exploring the biological subtyping of suicidal individuals.

Developing Interventional Strategies

As a clinical psychologist, Dr. Stanley has created psychosocial interventions for suicide prevention, including the Safety Planning Intervention, which she developed with **Gregory K. Brown, PhD**, Director of the Center for the Prevention of Suicide at the University of Pennsylvania. The Safety Planning Intervention, a prioritized list of coping strategies and resources for reducing suicide risk, was originally used by the researchers in a treatment study of suicidal adolescents as a way to keep them safe until they received cognitive behavior therapy.

“We thought of it as a management technique, and it turned out that, in and of itself, it is a very powerful intervention,” says Dr. Stanley. “The Safety Plan is just that – an emergency plan for a suicidal person. We know from studies that suicidal feelings come and go, and the urge can dissipate. While suicide risk may last a few months, the actual time that a person plans a suicide attempt before acting is quite brief – often a few minutes to an hour. The Safety Plan helps people recognize when they are entering this danger zone and provides ways to deescalate and prevent a suicide attempt. The Safety Plan gives them something else to do instead of engaging in suicidal behavior.”

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The Safety Planning Intervention is now being used with the Veterans Administration, on crisis hotlines, and in emergency rooms, outpatient clinics, and inpatient units throughout the world.

Dr. Stanley and her Columbia colleagues are also participating in the NIMH Zero Suicide initiative to prevent suicide attempts and deaths among individuals receiving treatment within healthcare systems. “Throughout New York State, we are implementing a set of strategies in some 200 outpatient clinics,” says Dr. Stanley. “The aspirational goal is that if a patient is in our healthcare system, we should be able to detect and treat their suicidality and prevent suicide. Our project is designed to help outpatient providers improve their care of suicidal patients.”

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For More Information

Dr. Barbara H. Stanley • bhs2@cumc.columbia.edu

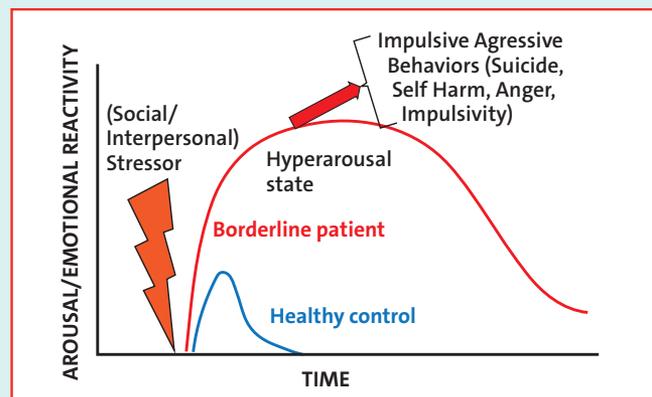
Borderline Personality Disorder: Presenting a Neuroscience Research Orientation

A workgroup of experts in borderline personality disorder in the Department of Psychiatry at NewYork-Presbyterian/Columbia University Irving Medical Center and NewYork-Presbyterian/Weill Cornell Medical Center has published a literature review and a direction for future research in BPD in the February 2018 issue of *Journal of Personality Disorders*. The Tusiani Family, which founded the Borderline Personality Disorder Resource Center at NewYork-Presbyterian in memory of their daughter and sibling, Pamela Ann Tusiani, supported the joint Columbia University-Cornell University Think Tank of experts whose insights led to this white paper on BPD.

“Our report suggests how to advance research in BPD by exploring the dimensions that underlie the disorder, in addition to studying the disorder as a unitary diagnostic entity,” says co-lead author **Barbara H. Stanley, PhD**, Professor of Medical Psychology in the Department of Psychiatry at Columbia University Irving Medical Center, and Research Scientist in Molecular Imaging and Neuropathology at the New York State Psychiatric Institute. “We propose that linking the underlying neurobiological abnormalities to behavioral symptoms of the disorder can inform a research agenda to better understand BPD with its multiple presentations.”

A biobehavioral researcher in BPD and suicidal behavior, Dr. Stanley notes that in the past research in BPD has been relatively underfunded within the mental health field as compared to depression or bipolar disorder, but it is critically needed. “Those of us who work with patients who have this disorder are well aware that the mortality and morbidity are very high,” she says. “This is a group of individuals who can go on to live good lives, but while the disorder is fulminating, it’s incredibly painful and debilitating.”

“Our workgroup sought to reframe how we view borderline personality disorder,” continues Dr. Stanley. “Traditionally the study of personality disorders had been based on psychoanalytic or behavior models of the diagnostic group, a very heterogeneous group of people. We proposed to break it down into crucial elements of the disorder, and then study the underlying neurobiology of these elements. We suggested looking at emotion



Individuals with BPD have an underlying vulnerability to emotional hyperarousal states due to abnormalities in neurobiological systems subserving emotion regulation and stress responsivity. They also have an underlying vulnerability to social/interpersonal stressors due to abnormalities in the neurobiological systems mediating social cognition, attachment, and social reward. When individuals with BPD encounter social/interpersonal stressors, they are unable to regulate their emotions and quickly return to their baseline emotional state. (Source: *Journal of Personality Disorders*, February 22, 2018. Adapted from M. Goodman, personal communication.)

dysregulation, interpersonal deficits, and impulsive aggression – three characteristics of BPD. Instead of studying how people with BPD differ from other people or other diagnoses, we suggest examining these characteristics alone or in combination across diagnoses. For example, what typifies emotion dysregulation across the diagnostic spectrum in the context of somebody who also has interpersonal dysregulation? Our work is designed to move forward research on BPD as a brain disease and to identify underlying treatment targets. The point of our paper was to suggest direction of future research.”

Reference Article

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For More Information

Dr. Barbara H. Stanley • bhs2@cumc.columbia.edu

Improving Interventions for Mid- and Late-Life Depression

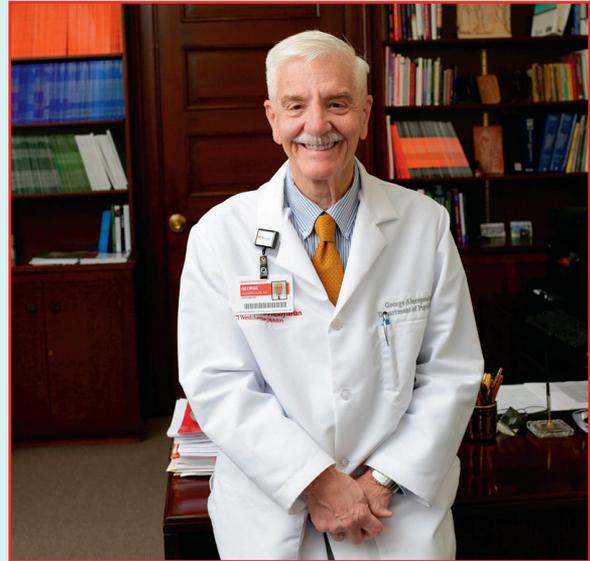
A \$4 million, 4-year grant from the National Institute of Mental Health (NIMH) enabled Weill Cornell Medicine investigators to found the Advanced Laboratory for Accelerating the Reach and Impact of Treatments for Mid- and Late-Life Depression (ALACRITY) Research Center. The ALACRITY Center is dedicated to developing and studying novel treatments for depressed middle-aged and older adults that can be delivered in the community.

Depression is the leading cause of disability worldwide. In middle-aged and older adults, depression worsens the course of most medical illnesses and increases mortality. Antidepressants address the needs of no more than half of those afflicted by depression. Psychotherapies are as effective as antidepressants in mild to moderately severe depression, but they are complex and rarely used correctly in community-based services.

With the rapidly rising numbers of older adults in the United States, development of broadly available, novel treatments for mid- and late-life depression is an important national priority, says **George S. Alexopoulos, MD**, Director of the Weill Cornell Institute of Geriatric Psychiatry at Weill Cornell Medicine and a psychiatrist at NewYork-Presbyterian Westchester Division.

Rather than focusing exclusively on improving the use of existing psychotherapies, the Weill Cornell ALACRITY team is working to both simplify the therapies themselves and to improve their delivery. Using the rapidly developing knowledge on brain biology of depression and their own neurobiology findings, the investigators proposed that dysfunction of specific brain networks (the reward, salience, and cognitive control networks) promotes the development of depression. Based on this view, they designed psychotherapies consisting of simple techniques aiming to help depressed patients pursue behaviors that engage these networks. “Repeated use of networks can strengthen their function in a similar manner that repeated exercise strengthens the body’s muscles,” says Dr. Alexopoulos, Principal Investigator of the ALACRITY Center.

The ALACRITY psychotherapeutic interventions are relatively easy to learn because they are streamlined and include simple techniques aimed to increase the function of networks implicated in depression. In addition to biology, input by consumers and community clinicians also guided the selection of psychotherapeutic techniques of ALACRITY’s interventions and their implementation approach in the community. To maximize their effect, the interventions have been designed for and tested in community settings where middle-aged and older adults receive care and services. These include primary care



Dr. George S. Alexopoulos

clinics, agencies treating victims of elder abuse, and senior centers attended by economically disadvantaged older adults. “We want to make effective psychotherapy available to treatment services offering care to depressed middle-aged and older adults across the country,” says Dr. Alexopoulos.

Currently, Dr. Alexopoulos and his team are testing ALACRITY’s novel interventions in three randomized, double-blind clinical trials in community services. In addition to in-person meetings with therapists, all three psychotherapies include smartphone apps that provide motivational messages reminding patients to pursue their treatment assignments and ask patients to rate various aspects of their mood and behavior daily. The apps also passively sense and monitor some of the patients’ activities (e.g., time spent in conversation, time away from home, places visited, sleep, etc.). If successful, the investigators hope that their psychotherapies can become part of the practice of therapists working in community settings. They also hope that their approach to intervention development can be used for patients affected by other mental health conditions. “Validating our approach in mid- and late-life depression would be a critical step that might increase the public health impact of psychotherapy as it never has before,” says Dr. Alexopoulos.

For More Information

Dr. George S. Alexopoulos • gsalexop@med.cornell.edu

ADVANCES IN PSYCHIATRY

NewYork-Presbyterian Hospital 525 East 68th Street New York, NY 10065

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Dr. Lee's research focuses on the molecular basis of anxiety disorders. He has pioneered a vertically integrated approach combining molecular and cell biological studies with parallel mouse and human circuit-based and behavioral studies to identify robust genotype-phenotype relationships to inform psychiatric practice.

Working with investigators in the Feil Family Brain and Mind Research Institute, Dr. Lee hopes to advance the department's expertise in systems neuroscience, combining techniques such as functional neuroimaging with noninvasive neurostimulation techniques, as well as streamlined behavioral interventions to treat psychiatric disorders such as depression.

"We have a tremendous resource in our large number of outpatient visits and inpatient beds. One of my priorities is to translate the department's incredible scientific advances into the actual delivery of innovative care to our patients," says Dr. Lee, who has served on several panels and boards at the National Institutes of Health and national mental health foundations. He is the recipient of numerous prestigious honors and awards, including the Presidential Early Career Award for Scientists and Engineers, the Burroughs Wellcome Clinical Scientist Award, and the Siegel Family Award

"When I hear from patients directly about the devastating impact of their psychiatric illnesses, it truly puts my work into perspective – that there's a certain level of urgency to what we're doing."

— Dr. Francis S. Lee

for Outstanding Medical Research. He has also been elected to the American Society for Clinical Investigation, Association of American Physicians, and the National Academy of Medicine.

In addition to his research, Dr. Lee remains an active clinician. "It means so much to me to see patients, because I learn from them," says Dr. Lee. "I can read articles, but when I hear from patients directly about the devastating impact of their psychiatric illnesses, it truly puts my work into perspective – that there's a certain level of urgency to what we're doing."

For More Information

Dr. Francis S. Lee • fslee@med.cornell.edu