HOPE THROUGH RESEARCH





HOPE AT HOME

Dear Friend,

It has been a strange year for us all. I do hope you are keeping well and healthy. I've been reflecting on the power of connection and community, and how the ties that bind us together have been a saving grace for so many.

To stay connected with you, we began *Hope at Home*, a free of charge daily eblast from March through June. We shared advice from HDRF's team of psychiatrists and research leaders, hosted live events on meditation and stress management, and

gave insights and tips for taking control of one's mental health while sheltering at home.

The pandemic has certainly underscored the urgency of our research mission; over 100 million Americans now

report symptoms of depression and anxiety, according to a Census Bureau survey.

Our research programs are more intense than ever. This Fall, HDRF's Depression Task Force has launched a clinical trial at Mount Sinai and Columbia that will test a potential new category of medication for depression.

In addition, we're thrilled to announce the first five recipients of our Defeating Depression Award, a competition launched in May to find the latest new medication and treatment concepts from around the nation. Please read about the important work in these pages.

Warmest regards,

Audrey Gruss Founder and Chair

NEW TREATMENT INITIATIVE

A Program to Bring New Treatments to the Doorstep of Clinical Care

MEET THE 2020 DEFEATING DEPRESSION AWARD WINNERS

In May 2020, HDRF announced an open, competitive process to find the most promising new treatments emerging from university laboratories across the country.

We have selected five projects to receive transformative funding to start clinical trials.



James W. Murrough, M.D., Ph.D. Icahn School of Medicine at Mount Sinai

- Director, Depression and Anxiety Center for Discovery and Treatment
- Associate Professor of Psychiatry and Neuroscience

Dr. Murrough has identified a link between depression and inflammation of key mood circuits in the brain. HDRF will fund a three-year pilot clinical trial at Mount Sinai to test a new drug that targets this inflammation.



Jennifer M. Coughlin, M.D. Johns Hopkins

• Associate Professor, Department of Psychiatry and Behavioral Sciences, with joint appointment in the Department of Radiology

HDRF will fund a study at Johns Hopkins that uses advanced neuroimaging to measure the brain's immune cells in depressed patients, a potential new way for doctors to diagnose depression early and target any inflammation to promote brain health.



Jyoti Mishra, Ph.D.University of California-San Diego

 Founder and Human Research Director, Neural Engineering and Translational Labs

HDRF will fund a clinical trial at the University of California-San Diego to develop the next generation of neuro-stimulation (TMS) approaches that greatly improve on those that exist today because they are based on a more sophisticated understanding of the brain.



Brian J. Mickey, M.D., Ph.D.University of Utah

- Associate Professor of Psychiatry
- Faculty Member in Psychiatry,
 Neuroscience, Biomedical Engineering and Anesthesiology

HDRF will fund clinical studies at the University of Utah to develop a personalized, anesthesia-induced treatment for depression. This novel intervention uses brief, deep anesthesia to trigger therapeutic neuroplasticity.



Heather Abercrombie, Ph.D.University of Wisconsin-Madison

• Scientific Director, Center for Healthy Minds



Simon Goldberg, Ph.D.University of Wisconsin-Madison

• Assistant Professor, Department of Counseling Psychology

HDRF will fund a field study of a mindfulness-based, cognitive therapy intervention that is delivered via mobile app, with great potential for massive scaling.

UPCOMING EVENT

PALM BEACH 5K RACE OF HOPE

Saturday, February 27, 2021 Palm Beach, FL

HDRF LAUNCHES FIRST CLINICAL TRIAL

By Jonathan Javitch, M.D., Ph.D., Member of the HDRF Depression Task Force

This fall, HDRF launched its first clinical trial to test an entirely new category of anti-depressant.

To tell you about the trial, I want to take a step back and reflect on a fundamental aspect of mental health – feeling connected. Humans are, at our core, social creatures. We have a fundamental need to belong and develop lasting relationships. It is part of our brain biology.

Now, I want to talk about a particular kind of pain that shows up in a lot of depressed patients. It is the feeling that we don't have this connection. The feeling of being rejected, unworthy, not wanted or undervalued. In the clinical setting, we call this pain "rejection sensitivity."

But through research funded by HDRF, we figured out how it works. Remarkably, tianeptine targets receptors in the brain's pain management pathways, restoring

their function.

To be sure, none of us likes to feel snubbed, but research suggests that many depressed patients are abnormally sensitive and do not recover easily from the usual social rejections of everyday life. They seem to be walking around without normal buffers. Notably, at least a third of all patients with major depression have a clear pattern of interpersonal rejection sensitivity.

What are these buffers? Well, let me go back to brain biology. Research suggests that high rejection sensitivity may be a behavioral manifestation of an underlying deficit in the brain.

Clear evidence shows that when we feel social distress, this activates receptors and circuits in the brain's natural pain management system. Just as it does with physical pain, the body kicks into self-protection mode with emotional pain. It helps us recover and be willing to engage again.

But, for depressed patients with social rejection sensitivity, this system malfunctions. We believe neuroimaging shows that the brains of depressed people have a very blunted pain management

response to emotional pain. We see a deficiency in pain management circuits when the individual is exposed to social distress and rejection.

So, the question is: Can we restore this circuit function, and thereby, bring relief from the emotional distress? We are going to test this question in in a two-year clinical trial that started this fall and is being

conducted at two sites:

The New York
 Psychiatric Institute at
 Columbia University and
 the Mount Sinai
 Medical Center.

In this study, we will target these pain management pathways with a compound known as tianeptine. Tianeptine is an atypical antidepressant

that has been used clinically in Europe, Asia and South America, but was never introduced in the United States, as nobody knew how it worked. But through research funded by HDRF, we figured out how it works. Remarkably, tianeptine targets receptors in the brain's pain management pathways, restoring their function.

This is an astonishing discovery that points to a new treatment strategy. We believe that depressed patients with high rejection sensitivity will not respond to conventional medications, but that they WILL benefit from this precise intervention on these pain circuits that regulate social distress.

This study crystalizes the unique strategy of the Depression Task Force. We use brain measures – biomarkers – to define a specific subtype of depression that will better respond to specific, targeted treatments. This is the goal of personalized, precision medicine and we are bringing this approach to the treatment of the most difficult cases of depression.

It is the support of HDRF and you that drive this research, transforming the lives of so many millions of suffering patients.

DEPRESSION TASK FORCE

Eric Nestler, M.D., Ph.D., Chair Mount Sinai School of Medicine

Huda Akil, Ph.D.
University of Michigan

Elisabeth Binder, M.D., Ph.D.

Max Planck Institute of Psychiatry

Kafui Dzirasa, M.D., Ph.D.

Duke University

René Hen, Ph.D.

Columbia University

Jonathan Javitch, M.D., Ph.D.

Columbia University

Conor Liston, M.D., Ph.D.

Weill Cornell Medicine

Helen S. Mayberg, M.D.

Mount Sinai School of Medicine

Michael Meaney, Ph.D.

Douglas Institute & McGill University

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DRIVE-BY LUNCHEON IN SOUTHAMPTON

The Hope for Depression Research Foundation hosted our first-ever Race of Hope Committee Drive-By Luncheon at the Southampton Cultural Center on Thursday, July 16. Race Grand **Marshals Audrey Gruss, Arthur Dunnam and Jamee Gregory**



HDRF Founding Chair Audrey Gruss presenting Sage Chambers and **Amanda Chambers with a picnic basket** during the Drive-by Luncheon.

waved to guests and thanked them for their support from the steps of the Cultural Center. HOPE yellow balloons lined the street. Each guest drove away with a delicious picnic basket provided by Eli Zabar NYC.



Tom Zacharias and Clelia Zacharias creatively sporting their Race of Hope jerseys.







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VIRTUAL RACE OF HOPE

The Virtual Race of Hope to Defeat Depression, Summer 2020, was a great success. It drew over 800 participants from across the country and raised \$200,000 for research! Traditionally, the Race is held in Southampton in August, but this year participants completed the 5K distance in their own hometowns. Although we were unable to gather in person, the HDRF team worked hard to capture the excitement of race day. On Sunday,



Several of HDRF's Depression Task Force members made appearances during the broadcast, including Dr. Elisabeth Binder from the Max Plank Institute in Munich, Germany.

August 2, HDRF produced a live show, streamed online, and invited participants to tune in and post messages about their race progress.

"We were able to touch base with so many people from all over who checked into the live broadcast," said HDRF Founder and Chair Audrey Gruss. "Adversity sometimes has a silver lining. This virtual year we got to do things a little differently, and it was meaningful and fun."



Grey's Anatomy star Eric Dane participated in the broadcast as a Race **Ambassador from Los Angeles.**



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SUPPORT HDRF

100% of all donations go directly to research into the origins, diagnosis, treatment and prevention of depression and its related mood disorders including: bipolar disorder, post-partum depression, post-traumatic stress disorder, anxiety disorders, and suicide.

HDRF is a non profit 501(c)(3) public charitable organization. All donations are tax-deductible to the fullest extent of the law.

Visit us at: hopefordepression.org