

HOPE THROUGH RESEARCH



HOPE FOR DEPRESSION
RESEARCH FOUNDATION

FUNDING THE BEST MINDS, TO HEAL MINDS.™

HDRF-FUNDED STUDY POINTS TO A NEW CLASS OF ANTIDEPRESSANTS



Rendering of neural network in the brain

The investigators of the HDRF Depression Task Force are hot on the trail of a potential new treatment for depression, signaling a major breakthrough in a field that has not seen a new category of anti-depressant medication in over 30 years.

A study conducted by **Dr. Rene Hen** of Columbia University has found that a compound targeting the brain's pain regulating system has clear promise for treating severe depression.

"We are very excited about this study – New treatments for depression could benefit the 50% of patients who do not respond to traditional therapies," said Dr. Hen a founding member of the HDRF Depression Task Force.

Since the advent of Prozac – the first SSRI in 1985 – there have been no new category of medications, only "copy-cat" variations of the SSRI-type drugs that act on the serotonin system in the brain. Serotonin is a neurotransmitter that regulates appetite, sleep, memory and social behavior. Existing drugs such as Zoloft, Lexapro and Paxil are all SSRIs.

In this new study, Dr. Hen and his team investigated a compound called tianeptine, an anti-depressant that has been used in Europe since the 1980's but not marketed in the U.S. due to

its patent expiration. Furthermore, the exact mechanism of action of tianeptine has been unknown.

Dr. Hen's research provides clear evidence that tianeptine works on the mu opioid receptor (MOR), which regulates pain throughout the body. The team gave tianeptine

to laboratory mice and then

conducted a series of standard tests that measure depression-like behaviors in the animals. Mice that lacked the MOR receptor had no response to the compound.

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NEW CLASS OF ANTIDEPRESSANTS

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MOR is the same receptor that's targeted by classic opioid drugs such as morphine. But unlike morphine, tianeptine does not appear to be addictive, based on these animal tests. Mice that received tianeptine for 30 days did not become tolerant to the drug and did not show withdrawal effects.

The findings show it may be possible to target the MOR system in specific ways to produce antidepressant effects without the side effects of opioid drugs. More studies will be required to determine whether tianeptine or other MOR modulators are effective in subsets of depressed patients, the researchers said.

Dr. Hen's study was published last fall in *Neuropsychopharmacology*. If you would like a copy of the study, please contact Anais Rivera at ar@hopefordepression.org.



Participants in the 2017 Walk of HOPE + 5K Run to Defeat Depression, Southampton, NY

FOUNDER'S MESSAGE

Molecular biology has transformed research in mental illness, and the research scientists of our Depression Task Force are leading the field. I am filled not only with hope, but with awe.

In only a short five years, since the beginning of the collaboration of the Depression Task Force, we have defined several specific directions for pilot clinical trials that may lead to new medications. Five years is an unprecedented fast track in the slow-paced world of research.

HDRF is also at the forefront of changing public attitudes about depression. We need to boost awareness nationwide so that



those who need it are empowered to seek help, and those who encounter the illness in a friend or loved one can respond with understanding and compassion.

Join us for our third annual Walk of HOPE this summer and our twelfth annual Luncheon Seminar this fall! Your participation and continued support make a world of difference.

Thank you,

Audrey Gruss
Founder & Chair

ASK A DEPRESSION TASK FORCE SCIENTIST

Is Depression Hereditary?

Dr. Eric Nestler, Chair of the Department of Neuroscience, Mount Sinai

Is depression a genetic trait that is passed from parent to child? Or is it nurture – a result of our upbringing and life experiences?

The answer is *both*. Studies show conclusively that depression is about 35% heritable or genetic. This is roughly comparable to the genetic risk for high blood pressure or most cancers. But this means that depression also depends heavily (~65%) on life experiences.

The neurobiology of how life experience can lead to depression is very complex. Epigenetics is the study of how our life experiences



turn certain genes ON or OFF in our brain's mood areas in a way that can be disruptive and unhealthy or, conversely, protective and pro-resilient. Studies show that chronic stress switches a large number

of genes ON or OFF in such a way that can lead to depression in people with a genetic vulnerability. All of us on the Depression Task Force are working hard to better understand this phenomenon.

*Have a question for our researchers?
Please send your question to info@hopefordepression.org*

DEPRESSION TASK FORCE MEMBER HEADS NEW BRAIN SURGERY EFFORT AT MOUNT SINAI

We are delighted to announce that Depression Task Force member Dr. Helen Mayberg is founding director of the newly-established Center for Advanced Circuit Therapeutics at the Mount Sinai School of Medicine. Dr. Mayberg is renowned for her study of the brain circuits of depression and her pioneering deep brain stimulation research. The new



center will advance precision surgical treatments for depression and other mind/brain disorders through neuro-engineering innovations that correct brain circuit abnormalities.

Dr. Mayberg moved to Mount Sinai in January from her previous post as Professor of Psychiatry, Neurology, and Radiology at Emory University in Atlanta.

Why can't we just think our way out of depression?

HDRF Board member
 Dr. Harold Koenigsberg
 Professor of Psychiatry at Mount Sinai
 As featured in *Psychology Today*
 "5 Myths About Depression We Need to Shut Down Immediately"



The belief that one can “pull oneself out of depression” comes from our day-to-day experience. We often use deliberate cognitive processes to put a negative situation in a more positive light – to see the glass “half full.” However, in clinical depression the bodily concomitants (e.g. low energy levels, inability to activate pleasure circuitry, etc.) are fixed and cognitive patterns lose their flexibility. When this happens it becomes hard to “pull oneself out.”



THE HDRF DEPRESSION TASK FORCE

From left to right: **Dr. Helen Mayberg**, Icahn School of Medicine at Mount Sinai; **Dr. Bruce McEwen**, Rockefeller University; **Dr. Rene Hen**, Columbia University; **Dr. Michael Meaney**, McGill University; **Dr. Eric Nestler**, Icahn School of Medicine at Mount Sinai; **Dr. Huda Akil**, University of Michigan; **Dr. Jonathan Javitch**, Columbia University

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ELEVENTH ANNUAL HOPE LUNCHEON SEMINAR NOVEMBER 8, 2017

“The Genetics of Depression: What is Known, What is Next”



Ashley Judd

Our sold-out Eleventh Annual HOPE event honored actress, activist and author **Ashley Judd** for her bravery and compassion in speaking out about her struggle with depression.

Judd inspired the audience with her life story and warm manner. “I am in recovery from depression and about that I have no shame and I am a living example of why there



Chuck Scarborough

is hope,” she said.

WNBC Anchor **Chuck Scarborough** was the Master of Ceremonies, and acclaimed neuroscientist **Dr. Eric Nestler** spoke about the genetics of depression.

Said one guest, **Sharon Loeb Handler**: “Dr. Nestler’s presentation was so interesting and hopeful that I took pages of notes!”

UPCOMING EVENTS

ART NEW YORK HONORS HDRF AT VIP PREVIEW

May 3, 2018
New York City

INAUGURAL HEALTHY BRAINS, HEALTHY MINDS SYMPOSIUM “TEENS, SOCIAL MEDIA AND MENTAL HEALTH”

Tuesday, May 8, 2018
New York City

WALK OF HOPE +5K RUN TO DEFEAT DEPRESSION

Sunday, August 5, 2018
Southampton, NY

TWELFTH ANNUAL HOPE LUNCHEON SEMINAR

Tuesday, November 6, 2018
The Plaza Hotel

SUPPORT HDRF

100% of all donations go directly to research that will transform the way depression is viewed, diagnosed, treated and prevented.

**For more information,
please contact:**

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