

Conquering Depression

An Interview with Audrey Gruss, Chairman, Hope for Depression Research Foundation (HDRF)

EDITORS' NOTE Audrey Gruss is President of The Audrey and Martin Gruss Foundation, which she and her husband, Martin, established 30 years ago to support charitable activities in education, medical research and the cultural arts. She brought the skills of her executive experience in the fields of international marketing and advertising to the nonprofit arena. She was the former co-owner and President of Terme di Saturnia, Inc., an international scientific skincare firm, and held executive positions at J.P. Stevens and Elizabeth Arden, as Director of Advertising and Creative Services Worldwide.



Audrey Gruss

Gruss is Founder and Chairman of the Hope for Depression Research Foundation (HDRF), which she established in 2006 in memory of her late mother, Hope, to fund pioneering neuroscience research into the origins, new treatments and prevention of depression. She is President of Hope Fragrances International, where 100 percent of net profits go to depression research at HDRF. She graduated with honors from Tufts University with a Bachelor of Science degree in Biology. A fellow of Tufts University, she established the Audrey Butvay Gruss Science Award for women. In January 2021 she was named as one of America's Most Influential People for 2020 by Marquis Who's Who on its annual list.

Gruss' philanthropic efforts have a U.S. and international dimension. In New York, she is the longest-standing female Board member of Lincoln Center for the Performing Arts. She is a Board member of Lenox Hill Neighborhood House, The FIT Couture Council and Robert Wilson's Byrd Hoffman Watermill Center. She is a former Board member of The Public Theater/NY Shakespeare Festival. She is on the Chairman's Council of the Metropolitan Museum of Art, a member of the Director's Council at the Museum of Modern Art, Patrons Circle of The Guggenheim Museum and is on the Creative Council of The Shed. Gruss is a Patron of The Metropolitan Opera, Lincoln Center Theater, The New York Botanical Garden and The NY Horticultural Society. The Audrey and Martin Gruss Foundation was a Benefactor of the Weill Greenberg Medical Center at Columbia Presbyterian Hospital. It was also the key sponsor of The Audrey and Martin Gruss Heart & Stroke Center at Stony Brook Southampton Hospital in Southampton, New York.

In Palm Beach, Gruss served on the Executive Committee of The Intracoastal Health Foundation Board and co-chaired the St. Mary's/ Good Samaritan Hospital expansion campaign, for which she received the 1998 Palm Beach Chamber of Commerce Charitable Achievement Award. She is a Board member of the Society of the Four Arts, the Preservation Foundation of Palm Beach and the Hospice Guild. She was Chair of the 2000 Bicentennial Gala of the Norton Museum. She is a three-time Gala Chair of the opening night of the Palm Beach International Fine Art and Antique Fair, benefitting the Community Foundation. She has been a three-time Chairman of The Preservation Foundation's annual fundraising Gala Dinner. Gruss is a Founder of the Kravis Center for the Performing Arts. She was honored by Palm Beach Atlantic University in Florida as a 2019 "Woman of Distinction."

Internationally, Gruss is a Board member of the American Friends of the Victoria & Albert Museum in London and a member of the International Advisory Council of the Royal Academy of Arts. She was previously on the Advisory Board of FAI, the premier architectural preservation group in Italy, and is a former member of the International Council of the Museum of Decorative Arts in Paris.

FOUNDATION BRIEF The mission of the Hope for Depression Research Foundation (hopefordepression.org) is to fund cutting-edge, scientific research into the origins, diagnosis, treatment and prevention of depression and its related mood and other emotional disorders – bipolar disorder, postpartum depression, post-traumatic stress syndrome, anxiety disorder and suicide. In 2012, HDRF launched its Depression Task Force (DTF) – an outstanding collaboration of leading scientists at the frontiers of brain science from different research institutions across the U.S. and Canada. These scientists have developed an unprecedented research plan that integrates the most advanced knowledge in genetics, epigenetics, molecular biology, electrophysiology, and brain imaging. To accelerate breakthrough research, they share ongoing results, in real time, at a centralized data bank, the HDRF Data Center. HDRF was founded in April 2006 by Audrey Gruss in memory of her mother, Hope, who suffered from clinical depression.

What was the vision for creating the Hope for Depression Research Foundation (HDRF) and how do you define its mission?

It is an honor and a privilege to have the opportunity to communicate the information I have learned about the importance of mental health in our personal lives and globally. As many of your readers who may have a husband or wife, a parent, child, family member or work associate struggling with depression, I had a family experience that shaped my life. My mother's name was Hope. She had been a talented, outgoing woman who had been a teacher, a writer and a poet. She loved to sing, dance and had a wonderful sense of humor. Decades ago, in the early 1960s, my father and my two younger sisters and I were stunned when my mother suffered what was then called a "nervous breakdown." We know today that she had major depressive disorder, or MDD. For decades my sisters, father and I witnessed revised diagnoses, trials of medication, troublesome side effects, intermittent trips to the hospital, and the constant life-sapping loss of energy that is the mark of depression. We were confused, scared, at times embarrassed and ashamed of having a mother with mental illness, and frustrated that more wasn't done to bring our real mother back to us.

My mother died 15 years ago and I was devastated. That lingering frustration of wondering why the field didn't have new and better treatments led me to action. I dug deeper and talked to psychiatrists, psychopharmacologists and neuroscientists. I had been under the impression that all the different antidepressants my mother was given over the last 30 years were each a distinctive new category of medication. Well, they weren't. I learned that they were variations of Prozac, a serotonin-type antidepressant that had been introduced over 35 years ago, and variations of SNRIs – norepinephrine-based antidepressants. I learned that 30-50 percent of patients do not fully respond to these existing medications and that we didn't even know the causes and origins of depression. I learned that many major drug companies had closed their brain research operations.

It became clear to me that depression treatment and research were on the back burner and that was unacceptable, considering that over 20 million Americans struggle with depression every year. No one is spared because everyone can get depression – every race, age, sex,

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religion, education level and socioeconomic level. Depression is the number one reason in the world for disability.

Depression was misunderstood by the general public; it was under-researched and under-funded. For years, I had both raised funds for, and donated to, many worthy charities in culture and the arts. While I think it's important to have a breadth of interests in our lives, I vowed to do everything in my power to help conquer this dreaded illness. So 15 years ago, in 2006, with my husband Martin's encouragement, support and seed capital, I founded the Hope for Depression Research Foundation in memory of my mother, Hope.

The mission of the Hope for Depression Research Foundation is to fund the most innovative neuroscience research into the origin, diagnosis, treatment and prevention of depression and its related mood disorders – bipolar disorder, postpartum depression, post-traumatic stress disorder, anxiety disorder and suicide. In addition, HDRF aims to raise awareness of depression as a medical illness and to educate the public about the facts of depression. We educate and inform in order to help remove the stigma that still surrounds depression.

Will you discuss how HDRF defines depression and highlight the range of related mood disorders that the Foundation is focused on addressing?

When we focus on depression at HDRF, we mean not only unipolar depression, but also its related mood disorders – bipolar disorder, postpartum depression, post-traumatic stress disorder, anxiety disorder and suicide. For example, schizophrenia and other psychotic illness that is out-of-touch with reality represents less than 1 percent of the U.S. population, or 2 million people. Depression and anxiety represent over 27 percent or approximately 87 million people. Depression and its related mood disorders are as prevalent as the common cold. At HDRF, we felt that if we focus on depression, our findings would enlighten the understanding of the rest of the field.

Will you provide an overview of the cutting-edge, scientific research that is taking place around the issue of depression through the New Treatment Initiative?

Advanced scientific research is taking place with our New Treatment Initiative program, which we started last year. We have selected four projects to receive transformative funding to start clinical trials.

- James W. Murrough, MD, PhD, who is Director, Depression and Anxiety Center for Discovery and Treatment and Associate Professor of Psychiatry and Neuroscience, Icahn School of Medicine at Mount Sinai, 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.

- 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. This will be led by Jennifer M. Coughlin, MD, who is Associate Professor, Department of Psychiatry and Behavioral Sciences, with joint appointment in the Department of Radiology at Johns Hopkins.

- 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. This will be under the direction of Jyoti Mishra, PhD, who is Founder and Human Research Director, Neural Engineering and Translational Labs at the University of California-San Diego.

- Heather Abercrombie, PhD, who is Scientific Director, Center for Healthy Minds and Simon Goldberg, PhD, Assistant Professor, Department of Counseling Psychology at the University of Wisconsin-Madison will lead an HDRF funded field study of a mindfulness-based, cognitive therapy intervention that is delivered via mobile app, with great potential for massive scaling.

How valuable has it been to bring together world renowned neuroscientists in creating the Depression Task Force and will you highlight the work of the Task Force?

Although our mission is two-fold – research and raising awareness – the core of HDRF's mission is research. We spent the first six years at HDRF laying the groundwork for what was missing in depression research and studying the most essential brain biology for the causes of depression. A primary goal at HDRF had been to establish a collaboration and an overall research strategy with a group of researchers from different universities, and we accomplished that in 2012 with the formation of the Depression

Task Force (DTF). Each member is a leader in their specific discipline – genetics, epigenetics, cellular biology, molecular biology, etc. They all agreed to collaborate and share their information in real time by inputting it into the Hope Data Center at the University of Michigan. They work together, instead of in silos as does most of the rest of the field.

The DTF has largely defined the entire field of depression over the past decade. They have defined the importance of epigenetics in showing how our brain's stress response can throw cells and circuits off balance. They have discovered dramatic sex differences in mouse stress models, essentially demonstrating that depression in men is fundamentally different from depression in women. They have led the field in the study of brain circuits that underlie depression, using tools like optogenetics, fiber photometry, calcium imaging and brain imaging to map brain circuits and see how they influence mood and behavior. They then relate their findings in rodent models to humans, and they study post-mortem samples of brain tissue to verify disrupted circuits in human depression.

COVID has increased isolation and loneliness for people and contributed to the challenges around depression. How has the pandemic impacted depression?

The CDC, in combination with the Census Bureau, did a study last year that showed that one-third of Americans have clinical depression and anxiety. That means 112 million people are experiencing the most prevalent mental health issues of the entire mental health field. In pre-COVID days, from 18 to 20 million people struggled with depression annually, but the increase during COVID is a major statistic and a statement of how much mental health is affected by quarantine and lack of social interaction.

How critical is it to build a better understanding of the causes and challenges of depression and to work to alleviate the stigma around depression?

To raise awareness and to reduce the stigma of mental illness, we knew that we had to educate the public. There was so much misinformation and disinformation about depression out there. We strategized that depression had to be viewed not only as a mind disorder, but as a medical disorder. Our approach was to hold annual luncheon seminars where we would bring in leading psychiatrists from all over the

U.S. and Canada who were well-recognized leaders in specific aspects of depression. At our special events, we also used the positive aspect of celebrity status to raise awareness about depression and reduce the stigma. We realized that each time a high-profile individual publicly shared his or her own experience with depression, they helped overcome the lingering stigma of depression. They spoke as a celebrity; they suffered like any other human being. For every celebrity with the courage to speak out, there are millions of people who suffer from depression in silence. These celebrity stories get media visibility and encourage people to seek help.

Some of the celebrities who appeared at our luncheon seminars are Michael Phelps, Jane Pauley, Taraji P. Henson, LeAnn Rimes, Ali Wentworth, Ashley Judd, Anderson Cooper, Mariel Hemingway, David O. Russell, Richard Dreyfuss, Candace Bushnell, Callie Thorne, Felicia Taylor, Brooke Shields, Terry Bradshaw, Linda Hamilton, Lorraine Bracco, Dominick Dunne, and Jay McInerney.

When you are addressing an issue like depression that is a long-term, complex issue, how do you measure success of Hope for Depression Research Foundation's efforts?

Depression is a long-term, complex issue that needs to be studied from all facets. The Depression Task Force is looking at the very root causes of depression by utilizing animal research and also analyzing human brain slides to confirm findings of the animal research. HDRF has made great strides in identifying the pathways or circuits of depression in the brain, potential causes of depression, and potential new treatments. As a matter of fact, we currently have a clinical study underway at both Mount Sinai and Columbia hospitals in New York. They are studying a compound called "Tianeptine" to evaluate its antidepressant qualities. If successful, this compound would be the first new category of antidepressant for common use in the U.S. in over 35 years, since the introduction of Prozac and its SSRI-type medications. We are not celebrating until the study is complete, and it has unfortunately been delayed because of COVID. The overall work of the DTF has numerous aspects that represent successful advances in understanding depression.

I think it is very important that everyone know the 10 most important signs of depression. If you have been experiencing some of the following signs and symptoms most of the day, nearly every day, for at least two weeks, you may be suffering from depression:

- Unexpected sadness or crying
- Anxiety or irritability
- Loss of interest, no sense of pleasure
- Low energy, fatigue
- Feeling of hopeless or helpless
- Sleeping too much or too little
- Loss of appetite or weight gain
- Difficulty concentrating
- Aches or pains with no clear physical cause
- Thoughts of suicide ●

One of Hope's most moving poems:

"I leave"

I passed through earth like the wind...

I was led by a storm, love and death...

I passed like a pale shadow

Like a stream of water that never returns.

I passed through people and their hearts,

Through my beloved children's eyes

I passed like a jaded thief

Like a thief that never returns.

***"Depression is a thief that we will catch
and conquer so it will never return."***

Audrey Gruss