

# MOODS

Serving People with Unipolar and Bi-polar Illness, Their Families and Friends, since 1981

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## DNA Tests and Psychiatric Medications

By David Brody, M.D.

A simple, painless test that your psychiatrist can perform in his or her office to predict which psychiatric medication is right for you? Out of the roughly 24 antidepressant, 18 antipsychotic, and 12 anxiolytic medications currently on the market, a test that can tell your doctor which medication is most likely to work with the least amount of side effects? And the test is covered by insurance?

If this sounds too good to be true, that's likely because it is. Over the past several years, several companies have heavily promoted such tests both to doctors and patients and I routinely get requests from patients for the testing. The problem is that the tests are not as predictive as the companies would have you believe. To date, there is not any unbiased research that supports the idea that patients have better outcomes from medications selected on the basis of these tests versus medications selected by the prescribing clinician based on his or her clinical expertise. And too often, insurance companies balk at the expense of the testing, leaving patients on the hook for significant costs.

The tests, marketed under names such as Genesight and Genomind, take a sample of the patient's DNA (typically extracted from saliva) to analyze the genes that influence drug metabolism and drug response. Due to advances in the technology behind genetic analysis, this can be done quickly and inexpensively. The psychiatrist or nurse practitioner receives a report that characterizes the subtypes of these

genes along with a description of how the gene variants might change the clinical effects of different medications. The prescriber can then select a medication based on the patient's genetic profile.

The problem with these tests and the reasons that studies have failed to find that they do better than a doctor's or nurse's judgment have to do with our limited understanding of how medication actually works to relieve depression, anxiety or other symptoms of psychiatric disorders. The genes analyzed are associated with a handful of neurotransmitters in the brain, but there are undoubtedly other neurotransmitters or related mechanisms in the brain relevant to psychiatric symptoms that are not examined by the test. Other genes profiled in the test regulate how drugs are broken down in the body, but we've known for years that with few exceptions the amount of medication circulating in the bloodstream doesn't correlate with clinical response. Sometimes patients improve on a tiny dose of medication and others fail to show improvement on large doses.

Undoubtedly, the current genetic tests probe mechanisms related in some fashion to medication response, but the story is larger and more complicated. At some point, office-based genetic testing will play an important role in psychiatric treatment. But we're not there yet.

### References:

JAMA Psychiatry. 2018 Oct 1;75(10):1090-1091. doi  
J Clin Psychiatry. 2017 Jun;78(6):720-729. doi: 10.4088/JCP.15r10583

## Donald Klein, M.D.: Friend of MDSG Passes

By Li Faustino, Ph.D.

Earlier this month, the pioneer mood disorder researcher, Donald Klein, MD, passed away. We know Dr. Klein at MDSG because he presented a number of times at the prestigious MDSG lecture series. When it existed, our lecture series featured doctors who were doing the most cutting edge research in the field of mood disorders. We heard from lead investigators of new treatment approaches such as new medications, family treatments, transcranial magnetic stimulation, and more. But perhaps there was no one who shaped the understanding we have today of mood and anxiety disorders more than Dr. Klein.

He was at the forefront of psychiatric research at Columbia's Department of Psychiatry and the New York State Psychiatric Institute during a time robust for change in the options for people with depression. As one of the world's premier psychopharmacologists, Dr. Klein led some of the first studies examining treatment with medication in addition to psychotherapy and more specifically, he showed that anxiety disorders such as panic disorder could be treated effectively with antidepressant medication. This work spurred studies examining the connection and overlap between anxiety and mood disorders, a concept that is almost a basic principle today. Armed with a deeper understanding of mood disorders, doctors could better design treatments for anxiety, panic disorder,

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## Donald Klein, M.D., Passes

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atypical depression, and other mood disorders. Dr. Klein was an inspiring and challenging teacher of generations of psychiatrists, an outstanding communicator who wrote books for the general public, and an astute and compassionate doctor. His consultation and psychopharmacology services were sought after by many.

Today in MDSG support groups, our participants discuss and consider many treatment options. Sometimes the discussion is as sophisticated as the various medication categories and different types of therapies and all the combinations of both. This is possible largely due to the work of Donald Klein, MD. His pivotal discoveries became standard textbook teachings and changed the way mental health and medical professionals approach mood disorders.

### Items of Interest

Brown, Walter A. [Lithium: A Doctor, a Drug, and a Breakthrough.](#) Liveright, 2019. 288p.

Lithium was the first drug that could reduce the symptoms of mental illness. Dr. Brown writes of lithium's story from its inclusion in late 19th century drinks (like 7Up), to the first studies and uses by John Cade, to its use today.

Ropper, Allan H. and Brian Burrell. [How the Brain Lost Its Mind: Sex, Hysteria, and the Riddle of Mental Illness.](#) Avery, 2019. 256p.

The authors discuss the split into the fields of psychiatry and psychology and the reason the split took place. The authors compare the history of syphilis to that of mental illness.

Neustadler, Sarah [Love You Like the Sky: Surviving the Suicide of a Beloved.](#) SparkPress, 2019. 232p.

After her partner died, the

MDSG has always endorsed an educated consumer as one of the most valuable assets for one's treatment. Today's peer movement continues that tradition in that sufferers of mood disorders are often informed by each other, and take hold of their treatment more than ever before. The passing of Donald Klein feels especially nostalgic for us at MDSG since because of doctors like him we have more tools to educate ourselves. We have replaced lecture series with workshops and the internet, but the climate of multi-faceted psychiatric treatment was very much impacted by Donald Klein. So today we recognize the better position we are in for recovery than only a few decades ago. See Donald Klein's obituary here: <https://www.nytimes.com/2019/08/16/science/donald-klein-dead.html>

author, a psychologist, started writing emails to him describing her journey through the loss. Those emails are compiled in this book.

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Healthy Place. Depression Relapse Triggers: Quick and Simple Ways to Cope. <https://www.healthyplace.com/blogs/copingwithdepression/2019/8/depression-relapse-triggers-quick-and-simple-ways-to-cope>

Healthy Place. How to "Prove" Your Depression to Others. <https://www.healthyplace.com/blogs/copingwithdepression/2019/8/how-to-prove-your-depression-to-others>

National Geographic. Air Pollution Linked to Bipolar Disorder, Depression. <https://www.nationalgeographic.com/environment/2019/08/air-pollution-linked-to-bipolar-disorder-depression/>

## Ask the Doctor

MDSG's two medical advisors—David Hellerstein, M.D. and David Brody, M.D.—along with MDSG's Board Chair, Li Faustino, PhD., will answer your questions. Please send questions to MDSG's post office box or email them to [newsletter@mdsg.org](mailto:newsletter@mdsg.org).

Mood Disorders Support Group  
New York

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### NEW ADDRESS

P.O. Box 2359, New York, NY  
10163

Phone: (212) 533-MDSG

E-mail address: [info@mdsg.org](mailto:info@mdsg.org)

Website: [www.mdsg.org](http://www.mdsg.org)

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