

# Study identifies biological mechanisms for schizophrenia, bipolar disorder and depression

by Mark Wheeler



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Common psychiatric disorders such as schizophrenia, bipolar disorder and major depression share genetic risk factors related to immune function and DNA regulation, according to new findings by a large collaborative research project from the Psychiatric Genomics Consortium involving UCLA, King's College London, Cardiff University, Harvard and MIT.



The study was published online by the journal *Nature Neuroscience*.

Thousands of genetic differences in the human genome act together to increase the risk for psychiatric conditions such as schizophrenia. However, until now, it has not been clear how these genetic changes affect biological processes that then go on to alter brain function.

In the study the group analyzed [genetic data](#) from more than 60,000 participants, including individuals with schizophrenia, [bipolar disorder](#), [major depression](#), autism spectrum disorders

and attention deficit hyperactivity disorder, as well as healthy individuals. The aim was to identify which biological and biochemical pathways caused risk for these disorders.

By grouping the genetic data together, the consortium found that genes relating to [immune function](#) and histone methylation—molecular changes that alter DNA expression—are [risk factors](#) associated with the development of all the disorders. Such biological pathways are important, they noted, because they are much broader drug targets than single genes or proteins.



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of the brain that are most susceptible.

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"The success of this approach supports the utility of pathway and network analyses in understanding psychiatric disease," said Geschwind, who is also director of the Center for Autism Research and Treatment at the UCLA Semel Institute. "This is an approach that will only grow more powerful as more loci are identified with even larger studies in the next few years."

The study is the result of many years of work by hundreds of investigators worldwide in the Psychiatric Genomics Consortium, an international, multi-institutional collaboration founded in 2007 to conduct broad-scale analyses of genetic data for psychiatric disease. The PGC is currently genotyping new samples to further study these and additional psychiatric diseases, including anorexia and post-traumatic stress disorder.

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**More information:** "Psychiatric genome-wide association study analyses implicate neuronal, immune and histone pathways." *Nature Neuroscience* 18, 199–209 (2015)  
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"Thousands of genetic differences in the human genome act together to increase the risk for psychiatric conditions such as schizophrenia. However, until now, it has not been clear how these genetic changes affect biological processes that then go on to alter brain function."

And it sounds like it's still not clear what activates these genetic changes in the first place as per epigenetic theories.

Translation: more bioreductionist hot air, nothing to see, just move on and wait for the next one (shouldn't be more than a day or two).

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I have friends who suffer from these conditions and their lives are filled with pain for which I can do nothing but keep them company

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Psychiatrists/Physicians admit—Disorders are not a "Disease"

"There are no objective tests in psychiatry—no X-ray, laboratory, or exam finding that says definitively that someone does or does not have a mental disorder." "there is no definition of a mental disorder." "It's bull—. I mean, you just can't define it." — Allen Frances, Psychiatrist and former DSM-IV Task Force Chairman

"While DSM has been described as a 'Bible' for the field, it is, at best, a dictionary.... The weakness is its lack of validity. Unlike our definitions of ischemic heart disease, lymphoma, or AIDS, the DSM diagnoses are based on a consensus about clusters of clinical symptoms, not any objective laboratory measure. In the rest of medicine, this would be equivalent to creating diagnostic systems based on the nature of chest pain or the quality of fever." — Thomas Insel, Director of the National Institute of Mental Health

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"Virtually anyone at any given time can meet the criteria for bipolar disorder or ADHD. Anyone. And the problem is everyone diagnosed with even one of these 'illnesses' triggers the pill dispenser." — Dr. Stefan Kruszewski, Psychiatrist

"Despite more than two hundred years of intensive research, no commonly diagnosed psychiatric disorders have proven to be either genetic or biological in origin, including schizophrenia, major depression, manic-depressive disorder, the various anxiety disorders, and childhood disorders such as attention-deficit hyperactivity. At present there are no known biochemical imbalances in the brain of typical psychiatric patients—until they are given psychiatric drugs." — Peter Breggin, Psychiatrist

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While "there has been no shortage of alleged biochemical explanations for psychiatric conditions...not one has been proven. Quite the contrary. In every instance where such an imbalance was thought to have been found, it was later proven false." — Dr. Joseph Glenmullen, Harvard Medical School psychiatrist

"The theories are held on to not only because there is nothing else to take their place, but also because they are useful in promoting drug treatment." — Dr. Elliott Valenstein Ph.D., author of Blaming the Brain

"There is no blood or other biological test to ascertain the presence or absence of a mental illness, as there is for most bodily diseases. If such a test were developed ... then the condition would cease to be a mental illness and would be classified, instead, as a symptom of a bodily disease." — Dr. Thomas Szasz, Professor Emeritus of Psychiatry, New York University Medical School, Syracuse

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"We do not have an independent, valid test for ADHD, and there are no data to indicate

ADHD is due to a brain malfunction." — Final statement of the panel from the National Institutes of Health Consensus Conference on ADHD

"The way things get into the DSM is not based on blood test or brain scan or physical findings. It's based on descriptions of behavior. And that's what the whole psychiatry system is." — Dr Colin Ross, Psychiatrist

"Psychiatry has never been driven by science. They have no biological or genetic basis for these illnesses and the National Institutes of Mental Health are totally committed to the pharmacological line. ... There is a great deal of scientific evidence that stimulants cause brain damage with long-term use, yet there is no evidence that these mental illnesses, such as ADHD, exist." — Peter Breggin, Psychiatrist

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"No claim for a gene for a psychiatric condition has stood the test of time, in spite of popular misinformation." — Dr. Joseph Glenmullen, Harvard Medical School psychiatrist

"In reality, psychiatric diagnosing is a kind of spiritual profiling that can destroy lives and frequently does." — Peter Breggin, Psychiatrist

"...modern psychiatry has yet to convincingly prove the genetic/biologic cause of any single mental illness...Patients [have] been diagnosed with 'chemical imbalances' despite the fact that no test exists to support such a claim, and...there is no real conception of what a correct chemical balance would look like." — Dr. David Kaiser, Psychiatrist

"There's no biological imbalance. When people come to me and they say, 'I have a biochemical imbalance,' I say, 'Show me your lab tests.' There are no lab tests. So what's the biochemical imbalance?" — Dr. Ron Leifer, Psychiatrist

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"Virtually anyone at any given time can meet the criteria for bipolar disorder or ADHD. Anyone. And the problem is everyone diagnosed with even one of these 'illnesses' triggers the pill dispenser." — Dr. Stefan Kruszewski, Psychiatrist

"No behavior or misbehavior is a disease or can be a disease. That's not what diseases are. Diseases are malfunctions of the human body, of the heart, the liver, the kidney, the brain. Typhoid fever is a disease. Spring fever is not a disease; it is a figure of speech, a metaphoric disease. All mental diseases are metaphoric diseases, misrepresented as real diseases and mistaken for real diseases." — Thomas Szasz, Professor of Psychiatry Emeritus

"It has occurred to me with forcible irony that psychiatry has quite literally lost its mind, and along with it the minds of the patients they are presumably suppose to care for."— David Kaiser, Psychiatrist

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"DSM-IV is the fabrication upon which psychiatry seeks acceptance by medicine in general. Insiders know it is more a political than scientific document... DSM-IV has become a bible and a money making bestseller—its major failings notwithstanding."— Loren Mosher, M.D., Clinical Professor of Psychiatry

"All psychiatrists have in common that when they are caught on camera or on microphone, they cower and admit that there are no such things as chemical imbalances/diseases, or examinations or tests for them. What they do in practice, lying in every instance, abrogating [revoking] the informed consent right of every patient and poisoning them in the name of 'treatment' is nothing short of criminal."— Dr. Fred Baughman Jr., Pediatric Neurologist

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"Psychiatry makes unproven claims that depression, bipolar illness, anxiety, alcoholism and a host of other disorders are in fact primarily biologic and probably genetic in origin...This kind of faith in science and progress is staggering, not to mention naïve and perhaps delusional." — Dr. David Kaiser, psychiatrist

"In short, the whole business of creating psychiatric categories of 'disease,' formalizing them with consensus, and subsequently ascribing diagnostic codes to them, which in turn leads to their use for insurance billing, is nothing but an extended racket furnishing psychiatry a pseudo-scientific aura. The perpetrators are, of course, feeding at the public

trough."— Dr. Thomas Dorman, internist and member of the Royal College of Physicians of the UK

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"I believe, until the public and psychiatry itself see that DSM labels are not only useless as medical 'diagnoses' but also have the potential to do great harm—particularly when they are used as means to deny individual freedoms, or as weapons by psychiatrists acting as hired guns for the legal system." — Dr. Sydney Walker III, psychiatrist

"The way things get into the DSM is not based on blood test or brain scan or physical findings. It's based on descriptions of behavior. And that's what the whole psychiatry system is."— Dr. Colin Ross, psychiatrist

"No biochemical, neurological, or genetic markers have been found for Attention Deficit Disorder, Oppositional Defiant Disorder, Depression, Schizophrenia, anxiety, compulsive alcohol and drug abuse, overeating, gambling or any other so-called mental illness, disease, or disorder." — Bruce Levine, Ph.D., psychologist and author of Commonsense Rebellion

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"Unlike medical diagnoses that convey a probable cause, appropriate treatment and likely prognosis, the disorders listed in DSM-IV [and ICD-10] are terms arrived at through peer consensus."— Tana Dineen Ph.D., psychologist

"It's not science. It's politics and economics. That's what psychiatry is: politics and economics. Behavior control, it is not science, it is not medicine."— Thomas Szasz, Professor of Psychiatry Emeritus

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Human pheromones, it is so obvious.

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There may not be scientific tests to say, yes you have this test result and this proves you have [insert disease] however, mental health disorders are very real, particularly to the people living with them along with their family and friends. Pharmaceutical drugs help people with these disorders live in, and contribute to, society. There are complimentary therapies as well which help of course. Society expects certain behaviour and many people are unable to conform to that behaviour without medicine. The biological genetic factor may not have been found yet or it may not exist but the illnesses themselves do.

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