

Researcher contributes to work finding shared pathways for psychiatric disorders

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Nancy Buccola, MSN, APRN, PMHCNS-BC, CNE, Assistant Professor of Clinical Nursing at LSU Health New Orleans School of Nursing, contributed samples used in a study reporting shared genetic risk factors and common pathways for schizophrenia, major depression and bipolar disorder. The results are published online January 19, 2015 in *Nature Neuroscience*.

Buccola collected samples as part of the Molecular Genetics of Schizophrenia (MGS) study, part of genome-wide association study data being analyzed by the Psychiatric Genomics Consortium (PGC), a large international collaboration. For this study, the researchers examined data from 60,000 participants, including people with schizophrenia, [bipolar disorder](#), [major depression](#), autism spectrum disorders and attention deficit hyperactivity disorder as well as healthy individuals, to identify biological pathways for [psychiatric disorders](#). They found strong association between mechanisms related to immune function as well as changes in processes that turn genes on and off. The results indicate that risk variants for psychiatric disorders aggregate in particular biological pathways and that these pathways are frequently shared between disorders. The findings confirm known mechanisms and suggest several new insights into the development of psychiatric disorders.

According to the National Institute of Mental Health, which funded the research, in 2012, there were an estimated 43.7 million adults aged 18 or older in the U.S. with a mental illness in the past year. This represented 18.6 percent of all U.S. adults. The same year, there were an estimated

9.6 million adults aged 18 or older in the U.S. with serious mental illness, representing 4.1 percent of all U.S. adults.

While treatments are available, for some mental illnesses they are not effective for many patients. For example all of the currently used antipsychotic drugs for schizophrenia work by a mechanism discovered more than 60 years ago. No new effective drugs have been developed since, partly due to lack of knowledge about how the disease develops.

Buccola, Principal Investigator at LSU Health Sciences Center New Orleans for the MGS study, says "the PGC is a collaboration of some of the finest psychiatric genetic researchers in the world who are working together to understand the biology that underlies psychiatric disorders. This knowledge is critical in developing more effective and personalized treatments. I feel fortunate to make even a small contribution to this important work."

Provided by Louisiana State University

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