

# Biological Psychiatry

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## NEUROIMMUNE MECHANISMS RELATED TO PSYCHOSIS

Organizing Editors: Cameron S. Carter, Edward T. Bullmore, and Paul J. Harrison

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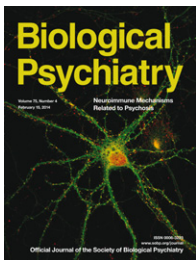
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**e5 High White Matter Neuron Density with Elevated Cortical Cytokine Expression in Schizophrenia**


*Samantha J. Fung, Dipesh Joshi, Stu G. Fillman, and Cynthia Shannon Weickert*



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Synapses can be readily labeled and quantified using cultured cortical neurons. This neuron was cultured from a newborn rat and grown for 8 days, at which time it was fixed and immunostained using antibodies against presynaptic (vGlut1, red) and postsynaptic (PSD-95, green) proteins. Sites of overlap of pre- and postsynaptic protein (yellow) are synapses. This kind of neuronal culture has been used extensively to provide insight into the role of major histocompatibility complex class I in synapse formation and in mediating the effects of maternal immune activation in causing a deficit in the ability of cortical neurons to form synapses. Image provided by B.M. Elmer and A.K. McAllister at University of California, Davis.

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