Corrigendum to abnormalities in personal space and parietal–frontal function in schizophrenia

Daphne J. Holt, Emily A. Boeke, Garth Coombs III, Stephanie N. DeCross, Brittany S. Cassidy, Steven Stufflebeam, Scott L. Rauch, Roger B.H. Tootell

Department of Psychiatry, Massachusetts General Hospital, Boston, MA, USA
Harvard Medical School, Boston, MA, USA
Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, USA
Department of Radiology, Massachusetts General Hospital, Boston, MA, USA
McLean Hospital, Belmont, MA, USA

It has come to our attention that one sentence in the published abstract of this article (“This hyper-responsivity was predicted by...”) is incorrect in its description of the results of the correlational analyses.

We have now corrected this error in the revised abstract below:

Schizophrenia is associated with subtle abnormalities in day-to-day social behaviors, including a tendency in some patients to “keep their distance” from others in physical space. The neural basis of this abnormality, and related changes in social functioning, is unknown. Here we examined, in patients with schizophrenia and healthy control subjects, the functioning of a parietal–frontal network involved in monitoring the space immediately surrounding the body (“personal space”). Using fMRI, we found that one region of this network, the dorsal intraparietal sulcus (DIPS), was hyper-responsive in patients with schizophrenia to face stimuli appearing to move towards the subjects, intruding into personal space. This hyper-responsivity was predicted by the size of personal space (which was abnormally elevated in the schizophrenia group and correlated with negative symptom levels). In contrast, in a second study, the activity of two lower-level visual areas that send information to DIPS (the fusiform face area and middle temporal area) was normal in schizophrenia. Together, these findings suggest that changes in parietal–frontal networks that support the sensory-guided initiation of behavior, including actions occurring in the space surrounding the body, contribute to social dysfunction and negative symptoms in schizophrenia.