1. INTRODUCTION
• The dopamine transporter (DAT) plays an important role in dopamine neurotransmission.
• Previous SPECT studies have found higher striatal DAT binding in patients with bipolar disorder (BD) compared with healthy controls, and a PET study with 11C-CFT found lower dopamine transporter availability in bilateral dorsal caudate in unmedicated BD patients.

2. METHODS
• Study participants: Patients with DSM-IV bipolar disorder (recent episode mania on mood stabiliser) and matched healthy controls.
• Scanning protocol: A ten minute transmission scan on a CTI/Siemens tomography which was followed by an emissions scan after injecting MP for 60 minutes. T1 weighted images obtained with turbo field echo sequence with (TR = 6.5 ms and voxel size 1.02xmm1.02mmx1.5mm with image size 250x256x140 voxels). Dynamic PET data was used to produce parametric images containing MP-BPND for each voxel. Simplified reference tissue model was used with occipital cortex as a reference region.

3. RESULTS
• Compared with healthy controls, recently remitted manic patients had a significant reduction in [11C]d-threo-methylphenidate binding potential in right ventral striatum but no differences in binding potential in left ventral or dorsal striatum.

4. CONCLUSION
• Mania is associated with REDUCED DAT availability, signifying abnormal presynaptic dopaminergic neurocircuitry.

5. REFERENCES