

Supplementary Online Content

Malhotra AK, Correll CU, Chowdhury NI, Müller DJ, Gregersen PK, Lee AT, Tiwari AK, Kane JM, Fleischhacker WW, Kahn RS, Ophoff RA, Lieberman JA, Meltzer HY, Lencz T, Kennedy JL. Association between common variants near the 3 melanocortin 4 receptor gene and severe antipsychotic drug–induced weight gain. *Arch Gen Psychiatry*. Published online May 7, 2012. doi:10.1001/archgenpsychiatry.2012.191.

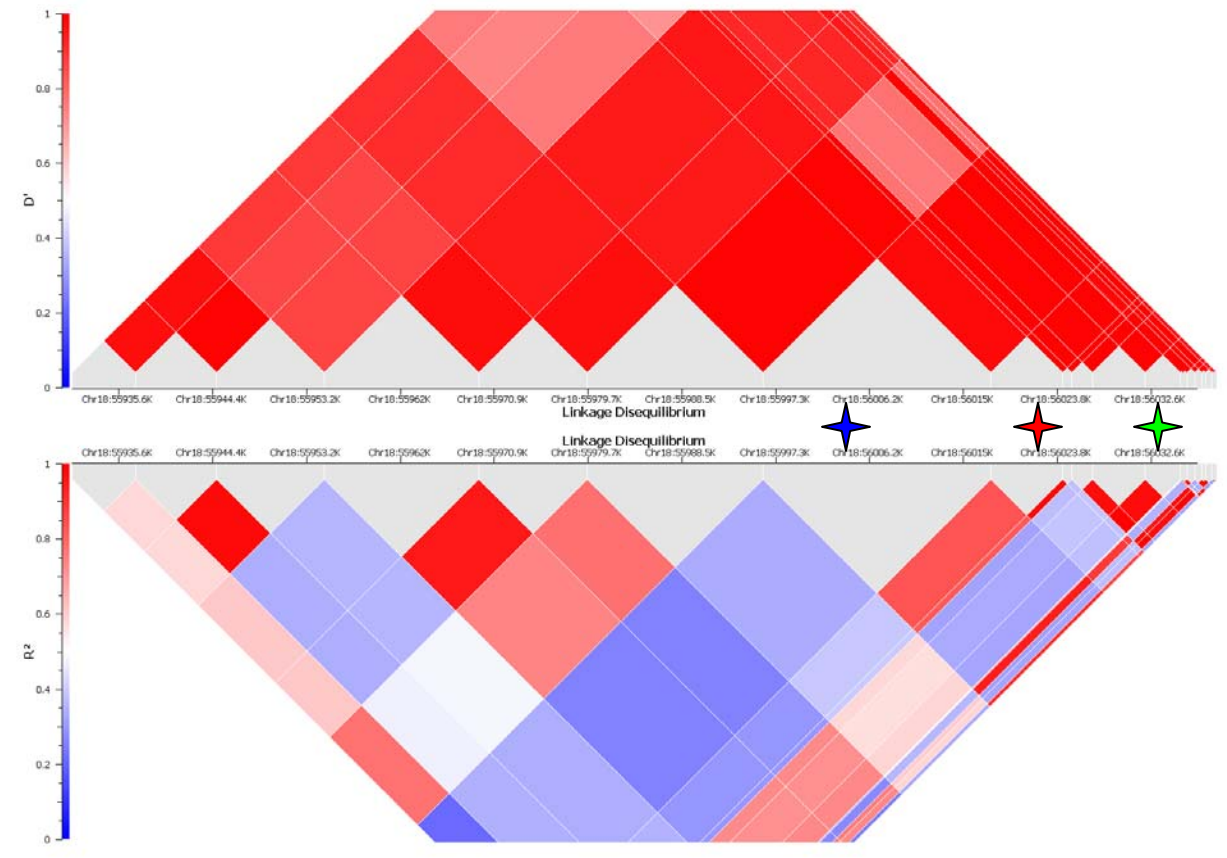
eFigure 1. Linkage disequilibrium plot.

eFigure 2. rs489693 genotype and percent change in weight from baseline for four cohorts.

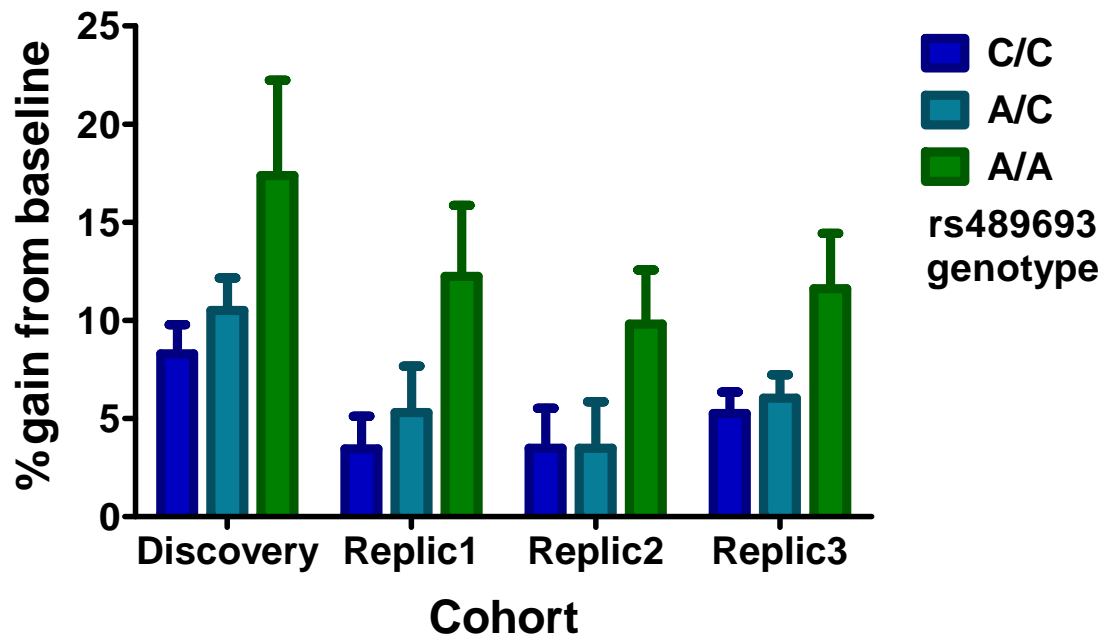
eTable 1. Demographic and clinical characteristics of 4 cohorts.

eTable 2. Diagnoses of discovery cohort.

This supplementary material has been provided by the authors to give readers additional information about their work.



eFigure 1. Linkage disequilibrium plot. Linkage disequilibrium for the SNPs listed in Table 1A. Top half displays D' values, which are at or near 1 across the region, demonstrating that alleles tend to travel upon the same haplotypes. Bottom half displays r^2 values, which vary based on differing minor allele frequencies as listed in Table 2. Green star indicates location of best-replicated SNP in the present study (rs489693); red star indicates location of top SNP emerging from GWAS in the discovery cohort (rs1942876); blue star indicates location of top SNP emerging from large-scale GWAS of BMI in the general population (rs17782313; Loos et al. 2008)



eFigure 2. rs489693 genotype and percent change in weight from baseline for four cohorts.

eTable 1. Demographic and Clinical Characteristics of 4 Cohorts

	Discovery Cohort	Replication Cohort 1	Replication Cohort 2	Replication Cohort 3
Duration (wks)	12	6	6	12
Total N	139	73	40	92
Female N (%)	58 (41.7)	28 (38.4)	18 (45.0)	39 (42.4)
Male N (%)	81 (58.3)	45 (61.6)	22 (55.0)	53 (57.6)
Age (SD)	13.38 (3.75)	33.48 (8.33)	35.20 (11.33)	26.02 (5.17)
Age range	4 - 19	18 - 58	18 - 62	18-40
% Caucasian	77 (55.4)	51 (69.9)	40 (100)	92 (100)
% African American	22 (23.0)	22 (30.1)	0	0
% other	30 (21.6)	0	0	0
Clozapine N (%)	0	73 (100.0%)	0	0
Risperidone N (%)	84 (60.4)	0	20 (50.0)	0
Aripiprazole N (%)	30 (21.6)	0	15 (37.5)	0
Quetiapine N (%)	25 (18.0)	0	5 (12.5)	25 (33.7)
Haloperidol N (%)	0	0	0	31 (27.2)
Amisulpride N (%)	0	0	0	21 (22.8)
Ziprasidone N (%)	0	0	0	15 (16.3)
rs489693 CC N (%)	58 (41.7)	36 (49.3)	17 (49.3)	46(50.0)
rs489693 AC N (%)	66 (47.5)	26 (35.6)	17 (35.6)	39 (42.4)
rs489693 AA N (%)	15 (10.8)	11 (15.1)	5 (15.1)	7 (7.6)

eTable 2. Diagnoses of Discovery Cohort.

Dx	n	%
Asperger's Disorder	3	2.2
Autistic Disorder	3	2.2
Bipolar Disorder	20	14.4
Brief Psychotic Disorder	1	0.7
Depressive Disorder NOS	5	3.6
Major Depressive Disorder	21	15.1
Mood Disorder NOS	18	12.9
Oppositional Defiant Disorder	20	14.4
Pervasive Developmental Disorder NOS	9	6.5
Psychotic Disorder NOS	30	21.6
Schizophrenia	7	5.0
Schizophreniform Disorder	1	0.7
Tourette's Disorder	1	0.7