Supplementary Table 1: Primers used for genotyping, cloning of DBH promoter region and composition of PCR used for Genotyping DBH polymorphisms

Marker	Oligo	Sequence	Allele	Product Size (bp)	Restriction enzyme	Fragment size (bp)
rs141116007	19bpDBHF	5'-AGGACCCACCACCATCCT-3'	Ins	202		202
	19bpDBHR	5'-CCTCAATCTTGGGGCTGA-3'	Del			184
rs1611115	rs1611115F	5'-CAGACCTGCTGTCATGGGTA -3'	C	476	Fau I	254+222
	rs1611115R	5'-AAGGAAAAGAGGGTGAGTGACA -3'	T		(New England Biolabs, Ipswich, MA, USA)	476
rs1989787	rs1989787F	5'-TCTCTCCCCTCTGGGGTATT-3'	A	445	Eco47III (AfeI)	445
	rs1989787R	5'-GCTAGAGGAAAGCCAGTTTTGA-3'	G		(Thermo Fisher Scientific, Waltham, MA,USA)	329+116

Composition of PCR used to genotype DBH markers

	rs141116007	rs1989787	rs1611115
Components			
10x Reaction buffer $MgCl_2$ free	2.0	2.0	1.0
50mM $MgCl_2$	0.6	0.8	0.4
2.5mM dNTPS	1.6	2.0	1.0
Forward Primer (10pmoles/µl)	1.0	1.0	0.25
Reverse Primer (10pmoles/µl)	1.0	1.0	0.25
3B DNA polymerase (5U/µl)	0.5	0.2	0.1
H_2O	11.3	11.0	6.0
DNA (25ng/µl)	2.0	2.0	1.0
Reaction volume(µl)	20	20	10

Primers used for cloning DBH promoter region and thermal cycling conditions for the PCR

Name	Sequence[#]	Tm°*	Amplicon length

DBH 19bp incF	5’-CTATACGCGTTCTGTTCCCACCTTTTCCAG-3’	72.1/58.4	5677bp
Prom 2	5’-GCTTCTCGAGGGCTGGGGTGAGCTCTCT-3’	76/60.7	
DelXIX F	5’-CTGTCTCGCTAGCCCTCACTGCAT-3’	68.7	2262bp
DelXIX R	5’-TTGGCCACATGCCTCCCTGT-3’	62.5	

#Sequence from 5’ to the end of highlighted region are overhangs and highlighted region is restriction sites (Mlu I and Xho I respectively)followed by sequence complimentary to genomic DNA

*Tm of the entire oligo / Tm of the omplimentary region

Supplementary Table 2: PCR cycling, restriction digestion conditions for genotyping and thermal cycling conditions for amplicons used in cloning DBH promoter region

Steps	**Thermal cycling condition for rs141116007 amplicon**			**Thermal cycling condition for rs1989787 amplicon**			**Thermal cycling condition for rs1611115 amplicon**		
	°C	**Time**	**Cycles**	**°C**	**Time**	**Cycles**	**°C**	**Time**	**Cycles**
1	95	5min		94	5min		94	5min	
2	95	15s	Step 2 to 4	94	1min	Step 2 to 4	94	1min	Step 2 to 4
3	59	30s	35 cycles	58	30s	40 cycles	58	30s	35 cycles
4	72	30s		72	1min		72	1min	
5	72	7min		72	15min		72	15min	
7	4	∞		4	∞		4	∞	

Restriction digestion conditions for rs1989787 and rs1611115			
rs1989787		**rs1611115**	
Components	**Volume (µl)**	**Components**	**Volume (µl)**
10 x Buffer O	2.5	10 x Cutsmart™ buffer	1.5
PCR reaction	20.0	PCR reaction	10.0
H_2O	2.4	H_2O	3.3
Eco47III (AfeI) 10 U/ µl	0.1	FauI 5U/ µl	0.2
Incubate 37°C O/N		Incubate 55°C O/N	

PCR cycling conditions for the two amplicons for cloning DBH promoter region						
Steps	**Cycling condition for Insert I**			**Cycling conditions for Insert II**		
1	94°C	1min		94°C	1min	
2	98°C	10s	Step 2 to 4	98°C	10s	Step 2 to 4
3	62°C	30s	35 cycles	66°C	30s	35 cycles
4	72°C	5.6min		72°C	2.2min	
5	72°C	10min		72°C	10min	
6	4°C	∞		4°C	∞	

Supplementary Table 3: Associations of DBH markers with accuracy of different cognitive domains

	Abstraction and Mental flexibility$_{accuracy}$	**Attention**$_{accuracy}$	**Face memory**$_{accuracy}$	**Spatial memory**$_{accuracy}$	**Verbal memory**$_{accuracy}$	**Spatial processing**$_{accuracy}$	**Sensorimotor dexterity** accuracy	**Emotional processing** accuracy
Gender	F(1,608)=13.3;p<0.001	---					F(1,586)=13.4;p<0.001	
Health	F(1,608)=50.3;p<0.001	F(1,529)=20.7;p<0.001	F(1,608)=17.3;p<0.001	F(1,605)=7.6;p=0.006	F(1,583)=33.4;p<0.001	F(1,515)=6.1;p<0.05	F(1,586)=15.1;p<0.001	F(1,603)=15.4;p<0.001
Indel19bp	---	---	---	---	---	---	---	---
rs1989787	---	---	---	---	---	---	---	---
rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp	--	---	---	---	---	---	---	---
Health * rs1989787	F(2,608)=3.7;p=0.03	---	---	---	---	---	---	---
Health * rs1611115	---	---	---	---	F(2,583)=3.1;p=0.048	---	---	F(2,603)=3.9;p=0.05
Indel19bp * rs1989787	---	---	---	---	---	---	---	---
Indel19bp * rs1611115	---	---	---	---	---	---	---	---
rs1989787 * rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787	F(3,608)=3.0;p=0.03	---	---	---	---	---	---	---
Health * Indel19bp * rs1611115	F(4,608)=3.3;p=0.01	---	---	---	---	---	---	---
Health * rs1989787 * rs1611115	---	F(1,529)=4.5;p=0.03	---	---	---	---	---	F(1,603)=4.4;p=0.04
Indel19bp * rs1989787 * rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787 * rs1611115	F(2,608)=4.1;p=0.02	---	---	---	---	---	---	---

Supplementary Table 4: Associations of DBH markers with processing speed of different cognitive domains

	Abstraction and Mental flexibility$_{\text{processing speed}}$	**Attention$_{\text{processing speed}}$**	**Face memory$_{\text{processing speed}}$**	**Spatial memory$_{\text{processing speed}}$**	**Verbal memory$_{\text{processing speed}}$**	**Spatial Processing$_{\text{processing speed}}$**	**Sensorimotor dexterity$_{\text{processing speed}}$**	**Emotional processing$_{\text{processing speed}}$**
Gender	---	F(1,527)=13.9;p<0.001	---	---	---	---	F(1,582)=18.3;p<0.001	F(1,598)=6.1;p<0.05
Health	F(1,601)=6.2;p<0.05	F(1,527)=27.1;p<0.001	F(1,603)=4.0;p=0.05	---	F(1,578)=3.8;p=0.05	F(1,504)=17.1;p<0.001	F(1,582)=12.6;p<0.001	F(1,598)=17.0;p<0.001
Indel19bp	---	---	---	---	---	---	---	---
rs1989787	---	---	---	---	---	---	---	---
rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp	--	---	---	---	---	---	---	F(2,598)=3.4;p=0.03
Health * rs1989787	---	---	---	---	---	---	---	---
Health * rs1611115	---	---	---	---		---	---	
Indel19bp * rs1989787	F(3,601)=2.9;p=0.03	---	---	---	---	---	---	---
Indel19bp * rs1611115	---	---	---	---	---	---	---	---
rs1989787 * rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1611115	---	---	---	---	---	---	---	---
Health * rs1989787 * rs1611115	---	---	---	---	---	---	---	
Indel19bp * rs1989787 * rs1611115	F(2,601)=5.1;p=0.006	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787 * rs1611115	---	---	---	---	---	---	---	---

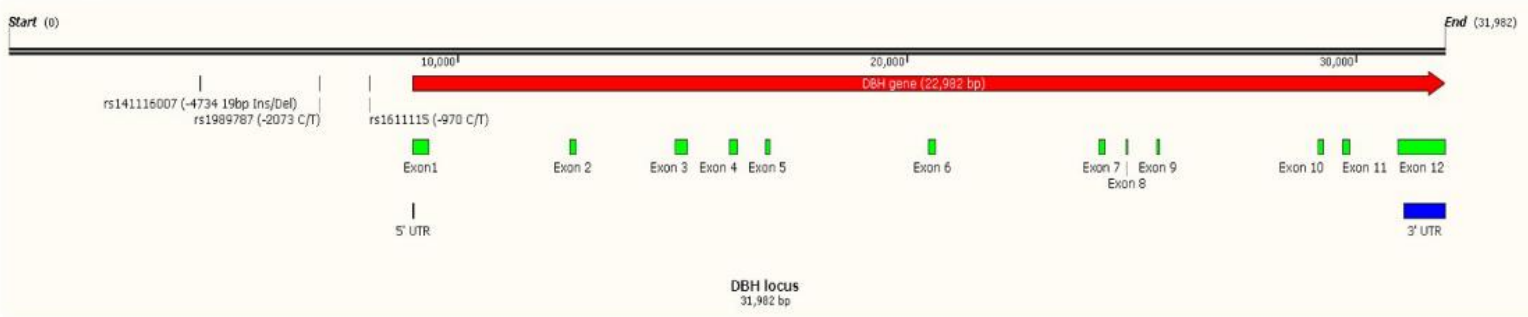
Supplementary Table 5: Associations of DBH markers with efficiency of different cognitive domains

	Abstraction and Mental flexibility$_{efficiency}$	**Attention$_{efficiency}$**	**Face memory$_{efficiency}$**	**Spatial memory$_{efficiency}$**	**Verbal memory$_{efficiency}$**	**Spatial Processing$_{efficiency}$**	**Sensorimotor dexterity$_{efficiency}$**	**Emotional processing$_{efficiency}$**
Gender	F(1,601)=14.2;p<0.001	---	---	---	---	---	F(1,582)=14.5;p<0.001	---
Health	F(1,601)=50.7;p<0.001	F(1,527)=25.0;p<0.001	F(1,603)=18.3;p<0.001	F(1,600)=6.9;p=0.009	F(1,578)=29.4;p<0.001	F(1,504)=8.6;p<0.003	F(1,582)=17.4;p<0.001	F(1,593)=16.7;p<0.001
Indel19bp	---	---	---	---	---	---	---	---
rs1989787	---	---	---	---	---	---	---	---
rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp	--	---	---	---	---	---	---	----
Health * rs1989787	F(2,601)=3.5;p=0.031	---	---	---	---	---	---	---
Health * rs1611115	---	---	---	---		---	---	
Indel19bp * rs1989787	---	---	---	---	---	---	---	---
Indel19bp * rs1611115	---	---	---	---	---	---	---	---
rs1989787 * rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787	F(3,601)=2.9;p=0.03	---	---	---	---	---	---	---
Health * Indel19bp * rs1611115	F(4,601)=3.1;p=0.02	---	---	---	---	---	---	---
Health * rs1989787 * rs1611115	---	F(1,527)=4.1;p=0.04	---	---	---	---	---	---
Indel19bp * rs1989787 * rs1611115	---	---	---	---	---	---	---	---
Health * Indel19bp * rs1989787 * rs1611115	F(2,601)=4.4;p=0.01	---	---	---	---	---	---	---

Supplementary Figure 1: Position of *DBH* variants selected for genotyping with respect to the gene

The three variants that were studied 19bp *Ins/Del*, rs1989787 and rs1611115 are marked with respective to DBH gene. The Exons are drawn to scale. Linkage disequilibrium (LD) measures (D' and R-sq) between the three variants are given in the table

Supplementary Figure 1: Position of *DBH* variants selected for genotyping with respect to the gene

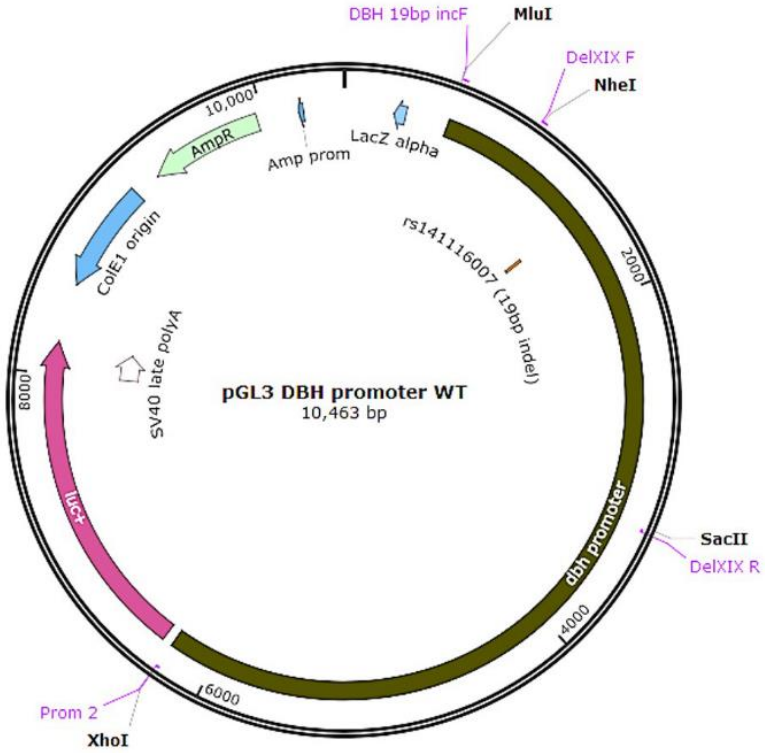


Marker 1	Marker 2	D'	R-Sq
rs141116007	rs1611115	0.23	0.02
rs141116007	rs1989787	0.57	0.05
rs1989787	rs1611115	0.82	0.03

Supplementary Figure 2: *DBH* WT promoter construct used for functional analysis

pGL3 DBH promoter WT construct (10.5kb) with 19bp *Ins* allele(rs141116007) with the primers used for cloning namely DBH 19bp incF and prom2 for amplicon I with Mlu I and Xho I overhangs; Del XIXF and Del XIXR for amplicon II with Nhe I and Sac II are also depicted

Supplementary Figure 2: *DBH* WT promoter construct used for functional analysis



Supplementary Figure 3: A decrease in accuracy, processing speed and efficiency of PennCNB neurocognitive scores in schizophrenia subjects observed with Cluster analysis

A general decrease in all the 24 cognitive scores was observed in SZ subjects as compared to healthy controls. Accuracy, processing speed and efficiency of cognitive scores of abstraction and flexibility, attention, working memory, face memory, spatial memory, spatial processing, sensorimotor dexterity and emotional processing are illustrated.

Supplementary Figure 3: A decrease in accuracy, processing speed and efficiency of PennCNB neurocognitive scores in schizophrenia subjects observed with Cluster analysis