

Supplementary Table 1. Distribution of BDNF rs6265 and BDNF rs56164415 polymorphisms between smokers and non-smokers in control subjects and veterans with PTSD. The data is shown as total number N and frequency.

Polymorphism	Genotype / Allele	Smoking		Statistics
		Yes	No	
		N	N	
Control subjects (N=120)	AA	1	3	$\chi^2=2.035$; df=2; p=0.361
	GA	25	22	
	GG	41	28	
	BDNF rs6265	A carriers	25	$\chi^2=0.847$; df=1; p=0.357
		GG	28	
	A	27	28	$\chi^2=1.315$; df=1; p=0.251
	G	107	78	
	CC	55	49	$\chi^2=3.330$; df=2; p=0.189
	CT	2	0	
	TT	10	4	
	BDNF rs56164415	T carriers	4	$\chi^2=2.750$; df=2; p=0.097
		CC	49	
	C	112	98	$\chi^2=4.258$; df=1; p=0.039
	T	22	8	
Subjects with PTSD (N=519)	AA	8	4	$\chi^2=0.738$; df=2; p=0.691
	GA	125	57	
	GG	211	114	
	BDNF rs6265	A carriers	61	$\chi^2=0.718$; df=1; p=0.397
		GG	114	
	A	141	65	$\chi^2=0.539$; df=1; p=0.463
	G	547	285	
	CC	250	136	$\chi^2=1.811$; df=2; p=0.404
	BDNF rs56164415	CT	37	
		TT	2	

T carriers	94	39	$\chi^2=1.546$; df=1; p=0.214
CC	250	136	
C	591	309	$\chi^2=1.144$; df=1; p=0.285
T	97	41	

BDNF - brain derived neurotrophic factor; χ^2 – chi-square test

Supplementary Table 2. PANSS cognitive subscale scores in control subjects and veterans with PTSD, depending on the smoking status and BDNF rs6265 and BDNF rs56164415 polymorphism. The data is shown as median and interquartile range (25th; 75th percentile), while p values in bold represent statistical significance.

Smoking	Polymorphism	Genotype / Allele	PANSS cognitive subscale scores			
			Control subjects	Statistics	Subjects with PTSD	Statistics
Smokers	BDNF rs6265	AA	6 (6; 6)	H=8.373; df=2; p=0.015	6 (5; 8)	H=6.647; df=2; p=0.036
		GA	4 (4; 4)		7 (6; 9)	
		GG	4 (4; 4)		7 (5; 8)	
		A carriers	4 (4; 4)	U=493.0; p=0.361	7 (6; 8)	U=12090.5; p=0.029
		GG	4 (4; 4)		7 (5; 8)	
		A	4 (4; 4)	U=1420.5; p=0.813	7 (5; 8)	U=35181.5; p=0.104
		G	4 (4; 4)		7 (5; 8)	
	BDNF rs56164415	CC	4 (4; 4)	H=0.318; df=2; p=0.853	6 (5; 8)	H=10.729; df=2; p=0.005
		CT	4 (4; 4)		8 (6; 8)	
		TT	4 (4; 4)		6 (5; 7)	
		T carriers	4 (4; 4)	U=316.5; p=0.695	8 (6; 8)	U=9327.0; p=0.003
		CC	4 (4; 4)		6 (5; 8)	
		C	4 (4; 4)	U=1194.0; p=0.685	7 (5; 8)	U=24113.5; p=0.011
		T	4 (4; 4)		8 (6; 8)	
Non smokers	BDNF rs6265	AA	4 (4; 4)	H=2.010; df=2; p=0.366	6 (5; 7)	H=0.869; df=2; p=0.647
		GA	4 (4; 4)		6 (5; 8)	
		GG	4 (4; 4)		6 (5; 8)	
		A carriers	4 (4; 4)	U=320.5; p=0.251	6 (5; 8)	U=3262.0; p=0.495
		GG	4 (4; 4)		6 (5; 8)	
		A	4 (4; 4)	U=1045.0; p=0.462	6 (5; 8)	U=8681.5; p=0.424
		G	4 (4; 4)		6 (5; 8)	
	BDNF rs56164415	CC	4 (4; 4)	U=53.0; p=0.001	6 (5; 8)	H=8.418; df=2; p=0.015
		CT	.		7 (6; 8)	
		TT	5 (4; 6)		9 (7; 10)	

T carriers	5 (4; 6)	U=53.0;	7 (6; 8)	U=1892.5;
CC	4 (4; 4)	p=0.001	6 (5; 8)	p=0.006
C	4 (4; 4)	U=212.0;	6 (5; 8)	U=4614.5;
T	5 (4; 6)	p<0.001	7 (6; 8)	p=0.004

BDNF - brain derived neurotrophic factor; H – Kruskal-Wallis test statistics; PANSS - Positive and Negative Syndrome Scale; U – Mann-Whitney test statistics value

Supplementary Table 3. ROCF Copy, Immediate and Delayed Recall Test scores in all veterans and in veterans with PTSD, depending on the smoking status and BDNF rs56164415 polymorphism. Results are shown as median and interquartile range (25th; 75th percentile), while p values in bold represent statistical significance.

Polymorphism	Genotype / Allele	ROCF Copy	Statistics	ROCF Immediate Recall	Statistics	ROCF Delayed Recall	Statistics
All veterans BDNF rs56164415	CC	20 (20; 20)	H=1.036; df=2; p=0.596	13 (11; 15)	H=11.065; df=2; p=0.004	7 (5; 9)	H=5.252; df=2; p=0.072
	CT	20 (20; 20)		10 (9; 12)		6 (5; 8)	
	TT	20 (20; 20)		14 (9; 15)		7 (6; 9)	
	T carriers	20 (20; 20)	U=2.376.0; p=0.479	10 (9; 14)	U=1.698.0; p=0.003	6 (5; 8)	U=2.001.0; p=0.071
	CC	20 (20; 20)		13 (11; 15)		7 (5; 9)	
	C	20 (20; 20)		13 (10; 15)		7 (5; 9)	
	T	20 (20; 20)		11 (9; 14)		6 (5; 9)	
Smokers BDNF rs56164415	CC	20 (20; 20)	H=0.306; df=2; p=0.858	13 (10; 15)	H=7.275; df=2; p=0.025	7 (6; 10)	H=2.124; df=2; p=0.346
	CT	20 (20; 20)		9 (9; 10)		6 (5; 8)	
	TT	20 (20; 20)		14 (14; 14)		7 (7; 7)	
	T carriers	20 (20; 20)	U=175.5; p=0.771	9 (9; 11)	U=86.0; p=0.024	6 (5; 8)	U=123.5; p=0.167
	CC	20 (20; 20)		13 (10; 15)		7 (6; 10)	
	C	20 (20; 20)		12 (10; 15)		7 (5; 10)	
	T	20 (20; 20)		10 (9; 13)		7 (5; 8)	



Non-smokers BDNF rs56164415	CC	20 (20; 20)	H=0.410; df=2; p=0.815	13 (11; 15)	H=0.989; df=2; p=0.610	7 (5; 9)	H=2.806; df=2; p=0.246
	CT	20 (20; 20)		14 (11; 16)		5 (4; 6)	
	TT	20 (20; 20)		15 (15; 15)		10 (10; 10)	
	T carriers	20 (20; 20)	U=42.0; p=0.522	15 (11; 16)	U=33.5; p=0.390	6 (4; 10)	U=43.0; p=0.766
	CC	20 (20; 20)		13 (11; 15)		7 (5; 9)	
	C	20 (20; 20)		13 (11; 15)		6 (5; 9)	