

SUPPLEMENTARY TABLES

Elevated endogenous GDNF induces altered dopamine signalling in mice and correlates with clinical severity in schizophrenia

Kärt Mätlik, PhD ^{1,*}, Daniel R. Garton, MSc ^{1,†}, Ana R. Montaña-Rodríguez, MSc ^{1,†}, Soophie Olfat, MSc ^{1,2,†}, Feride Eren, MSc ³, Laoise Casserly, MSc ¹, Anastasios Damdimopoulos, PhD ⁴, Anne Panhelainen, PhD ⁵, L. Lauriina Porokuokka, PhD ¹, Jaakko J. Kopra, PhD ⁶, Giorgio Turconi, MSc ¹, Nadine Schweizer, PhD ², Erika Bereczki, PhD ², Fredrik Piehl, MD, PhD ⁷, Göran Engberg, PhD ³, Simon Cervenka, MD, PhD ^{8,9}, T. Petteri Piepponen, PhD ⁶, Fu-Ping Zhang, MD, PhD ^{10,11}, Petra Sipilä, PhD ¹⁰, Johan Jakobsson, PhD ¹², Carl M. Sellgren, MD, PhD ^{3,8}, Sophie Erhardt, PhD ³, Jaan-Olle Andressoo, PhD ^{1,2,*,#}

¹ Department of Pharmacology, Faculty of Medicine, Neuroscience Center & Helsinki Institute of Life Science, University of Helsinki; 00290 Helsinki, Finland.

² Division of Neurogeriatrics, Department of Neurobiology, Care Sciences and Society (NVS), Karolinska Institutet; 14183 Huddinge, Sweden.

³ Department of Physiology and Pharmacology, Karolinska Institutet; 17177 Stockholm, Sweden.

⁴ Department of Biosciences and Nutrition, Karolinska Institutet; 14183 Huddinge, Sweden.

⁵ Institute of Biotechnology, University of Helsinki; 00014 Helsinki, Finland.

⁶ Division of Pharmacology and Pharmacotherapy, Faculty of Pharmacy, University of Helsinki; 00014 Helsinki, Finland.

⁷ Department of Clinical Neuroscience, Neuroimmunology Unit, Karolinska Institutet, Karolinska University Hospital; 17177 Stockholm, Sweden.

⁸ Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet & Stockholm Health Care Services, Region Stockholm; 17177 Stockholm, Sweden.

⁹ Department of Medical Sciences, Psychiatry, Uppsala University; 75185 Uppsala, Sweden.

¹⁰ Research Centre for Integrative Physiology and Pharmacology, Institute of Biomedicine and Turku Center for Disease Modeling, University of Turku; 20520 Turku, Finland.

¹¹ GM-Unit, Laboratory Animal Center, Helsinki Institute of Life Science, University of Helsinki; 00290 Helsinki, Finland.

¹² Laboratory of Molecular Neurogenetics, Department of Experimental Medical Science, Wallenberg Neuroscience Center and Lund Stem Cell Center, BMC A11, Lund University; 221 84 Lund, Sweden.

Supplementary Table S1. Differentially expressed protein-coding genes in the prefrontal cortex of *Gdnf^{crHyper/cHyper}*;Nestin-Cre mice that have been associated with schizophrenia in mouse and/or human studies.

Gene symbol	P-value	Differential expression	Genetic association	Animal model	References
<i>Adora2a</i>	<0.0001	+	+		(1-3)
<i>Adcy7</i>	0,00032		+		(4)
<i>Alas2</i>	0,00048		+		(5)
<i>Aldh1a1</i>	<0.0001	+	+		(3, 6)
<i>Als2cl</i>	<0.0001		+		(7)
<i>Ano2</i>	0,00066		+		(8)
<i>Arc</i>	<0.0001	+	+	+	(3, 9, 10)
<i>Arnt</i>	0,00015		+		(11, 12)
<i>Btg2</i>	<0.0001	+	+		(3, 13)
<i>Cbln4</i>	0,00026	+			(3)
<i>Celsr3</i>	0,00021		+		(4)
<i>Cnp</i>	<0.0001	+			(14)
<i>Col16a1</i>	<0.0001		+		(4)
<i>Col19a1</i>	0,00014		+		(15)
<i>Cpeb1</i>	0,00056		+		(12, 16)
<i>Cyr61</i>	<0.0001	+			(3)
<i>Dennd6b</i>	<0.0001		+		(4)
<i>Dnah6</i>	<0.0001		+		(4)
<i>Drd1</i>	<0.0001	+	+		(11, 17-21)
<i>Drd2</i>	<0.0001	+	+	+	(2, 11, 17, 22-29)
<i>Dusp1</i>	<0.0001	+			(30)
<i>Egr1</i>	0,00029	+	+		(3, 23)
<i>Egr2</i>	<0.0001	+			(3)
<i>Fos</i>	<0.0001		+		(31)
<i>Galnt9</i>	<0.0001	+			(3)
<i>Gpr88</i>	<0.0001		+	+	(32, 33)
<i>Hr</i>	0,00029	+			(3)
<i>Ier2</i>	0,00055		+		(4)
<i>Il18bp</i>	0,00053		+		(34)
<i>Il3ra</i>	<0.0001		+		(35-37)
<i>Inf2</i>	0,00011	+			(3)
<i>Lin28b</i>	<0.0001		+		(16)
<i>Mag</i>	<0.0001	+	+		(38-41)
<i>Masp2</i>	0,00074		+		(4)
<i>Mbp</i>	<0.0001	+	+		(6, 42, 43)
<i>Mobp</i>	<0.0001	+	+		(6, 41, 44, 45)

<i>Mog</i>	0,00047	+	+		(41, 46-49)
<i>Mov10</i>	0,00015		+		(4)
<i>Ndrg1</i>	0,00045	+			(3)
<i>Ndst3</i>	0,00015		+		(50-52)
<i>Npas4</i>	<0.0001	+			(53)
<i>Nr4a1</i>	<0.0001	+			(30, 54)
<i>Pde10a</i>	<0.0001	+	+		(55, 56)
<i>Pde7b</i>	<0.0001	+	+		(3, 57, 58)
<i>Peg3</i>	0,00024		+		(4)
<i>Penk</i>	<0.0001		+		(59, 60)
<i>Pkd1</i>	0,00061	+			(3)
<i>Plekhh1</i>	<0.0001		+		(4)
<i>Plp1</i>	<0.0001	+	+		(41, 61, 62)
<i>Rasd2</i>	<0.0001	+	+	+	(63, 64)
<i>Rtel1</i>	0,00073	+			(3)
<i>Tac1</i>	0,00072	+			(3)
<i>Th</i>	<0.0001		+		(65-67)
<i>Thpo</i>	0,0005	+			(3)
<i>Trf</i>	<0.0001	+	+		(14, 41, 43, 68-70)
<i>Trh</i>	<0.0001		+		(4, 71)
<i>Tspan2</i>	0,00014	+			(3)
<i>Xaf1</i>	<0.0001	+			(3)

Supplementary Table S2, related to Figure 7. Demographics and clinical characteristics of the study participants (healthy controls and drug-naïve first episode psychosis patients).

Supplementary Table S1. Demographics and clinical characteristics of the study participants			
Characteristic	Mean $\pm$ s.e.m (n)		P-value
	Healthy Controls (44)	Patients (29)	
Gender (male/female)	25/19	18/11	0.65
BMI	21.75 $\pm$ 1.18	23.59 $\pm$ 0.67	0.41
Nicotine (%)	18 %	27 %	0.33
DUP (months)	0	12.52 $\pm$ 4.26	
Age	26.75 $\pm$ 0.89	29.34 $\pm$ 1.27	0.15
<i>PANSS</i>			
Positive	—	18.5 $\pm$ 0.96	
Negative	—	16.9 $\pm$ 1.10	
General	—	36.5 $\pm$ 1.99	
Total	—	72 $\pm$ 3.36	
<i>Levels of Functioning</i>			
CGI Score	—	4.48 $\pm$ 0.21	
P-values between gender and nicotine difference are calculated with chi-square test. P-values between age and BMI are calculated with binomial logistic regression.			

Supplementary Table S3. Oligonucleotide sequences.

Genotyping primers for <i>Gdnf</i>^{Hyper} allele	
F1	TCTAAGAAAGCATTCGCTAAACG
F2	TTCCAGGGTCAAGGAAGGCAC
R1	GGATGCGGTGGGCTCTATG
R2	TCCGCCATCTTGGTCCTTATC
qPCR primer sequences	
Mm Gdnf F	CGCTGACCAGTGACTCCAATATGC
Mm Gdnf R	TGCCGCTTGTTTATCTGGTGACC
Mm Drd2 F	ACACACGCTACAGCTCCAAG
Mm Drd2 R	GGAGTAGACCACGAAGGCAG
Mm Gapdh F	GCCTCGTCCCGTAGACAAAA
Mm Gapdh R	ATGAAGGGGTCGTTGATGGC
Mm Hprt1 F	CAGTCCCAGCGTCGTGATTA
Mm Hprt1 R	TGGCCTCCCATCTCCTTCAT
Mm Pgk1 F	TTGGACAAGCTGGACGTGAA
Mm Pgk1 R	AACGGACTTGGCTCCATTGT
Mm Actb F	CTAAGGCCAACCGTGAAAAG
Mm Actb R	ACCAGAGGCATACAGGGACA

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