

**Table S2.** Genes involved in the 'neuron differentiation' process (GWAS-based GSEA overrepresentation) and their top significant polymorphism in the discovery phase of the association study.

Gene name	Mapped polymorphism	GWAS <i>p</i> -value
<i>NRXN3</i>	rs12587614	1.40x10 <sup>-4</sup>
<i>ATP2B2</i>	rs7629483	3.29x10 <sup>-4</sup>
<i>ROBO1</i>	rs7611200	3.35x10 <sup>-4</sup>
<i>MDGA2</i>	rs3007103	3.65x10 <sup>-4</sup>
<b><i>SEMA4F</i></b>	rs6546920	5.21x10 <sup>-4</sup>
<i>POU6F2</i>	rs6946031	6.04x10 <sup>-4</sup>
<i>LMX1B</i>	rs1005918	7.83x10 <sup>-4</sup>
<i>RTN4</i>	rs7575107	7.86x10 <sup>-4</sup>
<i>FARP2</i>	rs740314	8.12x10 <sup>-4</sup>
<i>ROBO2</i>	rs6767250	1.03x10 <sup>-3</sup>
<i>CNTN4</i>	rs17044749	1.08x10 <sup>-3</sup>
<b><i>NRP1</i></b>	rs12257894	1.38x10 <sup>-3</sup>
<i>SHH</i>	rs2125483	1.72x10 <sup>-3</sup>
<b><i>UNC5C</i></b>	rs13116705	2.59x10 <sup>-3</sup>
<i>CYFIP1</i>	rs1009153	4.10x10 <sup>-3</sup>
<i>YWHAG</i>	rs13247572	4.79x10 <sup>-3</sup>
<i>NRXN1</i>	rs2682005	4.87x10 <sup>-3</sup>
<i>PARD3</i>	rs950885	4.88x10 <sup>-3</sup>
<i>NLGN1</i>	rs551121	5.96x10 <sup>-3</sup>
<b><i>SLIT2</i></b>	rs4407501	6.59x10 <sup>-3</sup>
<i>BAIAP2</i>	rs4075482	7.36x10 <sup>-3</sup>
<i>CDK5</i>	rs1549759	7.60x10 <sup>-3</sup>
<i>LRRC4C</i>	rs16934385	7.63x10 <sup>-3</sup>
<i>NRTN</i>	rs3763046	9.09x10 <sup>-3</sup>
<i>OTX2</i>	rs11158129	9.33x10 <sup>-3</sup>
<i>GLI2</i>	rs277539	9.33x10 <sup>-3</sup>
<i>BRSK2</i>	rs12285091	9.66x10 <sup>-3</sup>
<i>GDNF</i>	rs10473068	1.08x10 <sup>-2</sup>

In bold, significant angioneurins and angioneurin receptors. *NRXN3*, neurexin 3; *ATP2B2*, ATPase, Ca<sup>++</sup> transporting, plasma membrane 2; *ROBO1*, roundabout, axon guidance receptor, homolog 1; *MDGA2*, MAM domain containing glycosylphosphatidylinositol anchor 2; *SEMA4F*, sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4F; *POU6F2*, POU class 6 homeobox 2; *LMX1B*, LIM homeobox transcription factor 1, beta; *RTN4*, reticulon 4; *FARP2*, FERM, RhoGEF and pleckstrin domain protein 2; *ROBO2*, roundabout, axon guidance receptor, homolog 2; *CNTN4*, contactin 4; *NRP1*, neuropilin 1; *SHH*, sonic hedgehog; *UNC5C*, unc-5 homolog C (*C. elegans*); *CYFIP1*, cytoplasmic FMR1 interacting protein 1; *YWHAG*, tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, gamma; *NRXN1*, neurexin 1; *PARD3*, par-3 family cell polarity regulator; *NLGN1*, neuroligin 1; *SLIT2*, slit homolog 2 (*Drosophila*); *BAIAP2*, BAI1-associated protein 2; *CDK5*, cyclin-dependent kinase 5; *LRRC4C*, leucine rich repeat containing 4C; *NRTN*, neurturin; *OTX2*, orthodenticle homeobox 2; *GLI2*, GLI family zinc finger 2; *BRSK2*, BR serine/threonine kinase 2; *GDNF*, glial cell derived neurotrophic factor.