Table S1. Association between the polymorphism and Alzheimer's disease or drugs used for their treatment included in the present study.

Gene	Variant	Name	Association with Alzheimer/Donepezil–Memantine	References
ABCB1	rs1128503 (*C1236T*)	ATP Binding Cassette subfamily B member 1	The ABCB1 C1236T, G2677T/A, and C3435T SNPs influence BBB P-glycoprotein function. ABCB1 is a transporter of donepezil	[8]
	rs1045642 (*C3435T*)			
	rs2032582 (*G2677A*)			
	rs2032582 (*G2677T*)			
	rs10248420			
	rs10276036			
	rs10280101			
	rs11983225			
	rs12720067			
	rs3842			
	rs4148737			
	rs4728709			
	rs7787082			
ADRA2A	rs1800544	Adrenoceptor alpha 2A	The mechanistic gene of anti-Parkinsonian drugs such as apomorphine. It is also involved in AD	[56]
APOC3	rs4520	Apolipoprotein C-III		[57]
	rs5128			
BDNF	*rs6265*	Brain-derived neurotrophic factor	Memantine and donepezil induce BDNF synthesis. BDNF is involved in AD	[48,53,54]
COMT	rs13306278	Catechol O-methyltransferase	It is involved in AD pathology	[44]
	rs4680			
CYP1A2	rs2470890 (**1B*)	Cytochrome P450 family 1 subfamily A member 2	Memantine is a weak inhibitor of CYP1A2. In human liver microsomes, memantine does not affect CYP1A2 activity	[58]
	rs2069514 (**1C*)			
	rs762551 (**1F*)			
CYP2A6	rs28399433	Cytochrome P450 family 2 subfamily A member 6	Memantine is a weak inhibitor of CYP2A6. In human liver microsomes, memantine decreases CYP2A6 activity	[55]
CYP2B6	rs3211371 (*5)	Cytochrome P450 family 2 subfamily B member 6	Memantine is a strong inhibitor of CYP2B6. In human liver microsomes, memantine inhibits CYP2B6 activity	[55]
	rs3745274 (*9)			
	rs2279343			
	rs2279345			
	rs4803419			
CYP2C19	rs12248560 (**17*)	Cytochrome P450 family 2 subfamily C member 19	Memantine is a weak inhibitor of CYP2C19. In human liver microsomes, memantine decreases CYP2C19 activity	[55]
	rs4244285 (**2*)			
	rs4986893 (**3*)			
	rs28399504 (**4*)			
CYP2C8	rs11572103 (**2*)	Cytochrome P450 family 2 subfamily C member 8	The substrate of selegiline, an anti-Parkinsonian drug	
	rs10509681 (**3*)			
	rs1058930 (**4*)			
CYP2C9	rs1799853 (**2*)	Cytochrome P450 family 2 subfamily C member 9	Donepezil is a substrate of CYP2C9	[59]
	rs1057910 (**3*)			
Gene	**Variant**	**Name**	**Association with Alzheimer/Donepezil–Memantine**	**References**
CYP2D6	rs1065852 (**10*)	Cytochrome P450 family 2 subfamily D member 6	Donepezil is a substrate of CYP2D6. There is a drug label for donepezil dose adjustment based on CYP2D6 genotype	[8]
	rs5030865 (**14*)			
	rs28371706 (**17*)			
	rs35742686 (**3*)			
	rs3892097 (**4*)			

	rs28371725 (*41)			
	rs5030655 (*6)			
	rs5030867 (*7)			
	rs5030865 (*8)			
	rs5030656 (*9)			
CYP3A4	rs55785340 (*2)	Cytochrome P450 family 3 subfamily A member 4	Memantine is a weak inhibitor of CYP3A4. In human liver microsomes, memantine does not affect CYP3A4 activity. In addition, CYP3A4 is a major substrate of donepezil	[8]
	rs35599367 (*22)			
	rs4646438 (*6)			
CYP3A5	rs776746 (*3)	Cytochrome P450 family 3 subfamily A member 5	The substrate of anti-Parkinsonian drugs such as levodopa	[8]
	rs10264272 (*6)			
CYP4F2	rs2108622	Cytochrome P450. family 4. subfamily F. polypeptide 2	The hepatic CYP450 enzyme system does not majorly contribute to the metabolism of this drug	
DRD2	rs1799732	dopamine receptor D2	Target of memantine	[52]
	rs1800497			
	rs6277			
DRD3	rs6280	dopamine receptor D3	Target of memantine	[60]
EPHX1	rs1051740	Epoxide hydrolase 1. microsomal (xenobiotic)	Show differential expression in AD	[61]
	rs2234922			
HTR2A	rs6313	serotonin receptor	HTR2A is a target for donepezil	[62]
	rs6314			
	rs7997012			
HTR2C	rs1414334		HTR2C is mildly involved in AD	
	rs3813929			
	rs518147			
PTGS2	rs20417	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	Associated with AD risk	[50]