Table S1: DISC1 interaction partners included in the study, and evidence for their involvement in psychiatric disease

Gene[a]	Location	Function	Evidence for involvement in psychiatric diseases	References [b]
DISC1	1q42.2	**"hub" protein [c]**	- genetic evidence (cytogenetics, linkage and association)	St.Clair et al.[1]; Blackwood et al.[2-3]; Ekelund et al[4-5]; Cannon et al.[6]; Callicott et al.[7]; Hennah et al.[8]; Hodgkinson et al.[9]; Saetre et al.[10]; Thomson et al.[11]; Kilpinen at el.[12]; Hashimoto et al.[13]
			- reduced expression in postmortem brain from SZ and UP patients, and in cell lines from BP patients	Sawamura et al.[14]; Maeda et al.[15]
			- impaired cognitive and behavioural phenotypes in humans and mutant mouse	Koike et al.[16]; Hikida et al.[17]; Clapcote et al.[18]; Pletnikov et al.[19]; Shen et al.[20]; Kvajo et al.[21]; Cannon et al.[6]; Burdick et al.[22]; Hennah et al.[23]; Li et al.[24]
ATF5 [25]	19q13.33	Signal transduction	- differential gene expression in lymphoblasts from MZ twins discordant for BP disorder	Kakiuchi et al.[26]
FEZ1 [27]	11q24.2	Neurite extension	- genetic evidence (association)	Yamada et al.[28]
			- reduced expression in postmortem brain from SZ patients	Lipska et al.[29]
			- physiological and behavioural effects in mutant mouse	
Grb2 [30]	17q24-q25	Nrg-EGF signaling	- no direct evidence, but interactions with multiple proteins associated with psychiatric illness, including DRD3, DRD4, PDE4D & ErbB receptors	Beard et al.[31]; Oldenhof et al.[32-33]; Corfas et al.[34]
NDE1 [35-36]	16p13	Neuronal migration & neurogenesis	- genetic evidence (linkage)	Hennah et al.[37]
NDEL1[25,36,38]	17p13.1	Neuronal migration & neurogenesis	- reduced expression in postmortem brain from SZ patients	Lipska et al.[29]; Tomppo et al.[39]
PAFAH1B1 [36]	17p13.3	Neuronal migration & neurogenesis	- reduced expression in postmortem brain from SZ patients	Lipska et al.[29]
PDE4B [40]	1p31.2	cAMP signaling	- genetic evidence (cytogenetics and association)	Millar et al.[40]; Tomppo et al.[39]; Pickard et al.[41]; Kähler et al.[42]
			- learning and memory alterations in Drosophila mutants	Davis[43]
			- behavioural effects in mouse mutants	O'Donnell and Zhang[44]; Siuciak et al.[45]; Zhang et al.[46]
			- altered gene expression upon antidepressant treatment	Takahashi et al.[47]; Miró et al.[48]; Dlaboga et al.[49]
TRAF3IP1 [25]	2q37.3	Signal transduction	- no direct evidence, but common interaction with DTNBP1, another major SZ risk gene	Camargo et al.[50]
YWHAE [51]	17p13.3	Signal transduction	- genetic evidence (association)	Ikeda et al.[52]
ZNF365 [53]	10q21.2	Neurite extension & cell division	- suggestive genetic evidence (linkage & association)	Liu et al.[54]; Marcheco-Teruel et al.[55]; Segurado et al.[56]

[a] References for interaction with DISC1 are given between brackets
[b] Data were reviewed in[57]
[c] As a hub protein, DISC1 is considered to be involved in all of the functions listed

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