Synaptic parameters of excitatory pathways. Average class parameters are marked in bold and are used predictively (in lack of reference *in vitro* data) for the remaining pathways belonging to the same class. Physical dimensions are as follows: peak conductance $\hat{g}$: nS, depression and facilitation time constants D, F, and the EPSC τ_{decay}: ms, the Hill coefficient of the nonlinear $[Ca^{2+}]_o$ dependent scaling of release probability U_{Hill}: mM, the release probability U_{SE}, the average number of vesicles in the release-ready pool N_{RRP}, and the NMDA/AMPA ratio $\hat{g}_{ratio}$ are dimensionless.

Pre	Post	$\hat{g}$	U_{SE}	D	F	N_{RRP}	τ_{decay}	$\hat{g}_{ratio}$	U_{Hill}
				PC to Sst+IN (E1)					
PC	MC	0.2±0.1	0.09±0.12	138±211	670±830	1.5	1.74±0.18	0.8	2.79
PC	**PT**	**0.6±0.5**	**0.02±0.00**	**194±18**	**507±37**	**4.5**	**1.74±0.18**	**0.8**	**1.09**
PC	**DT**	**0.2±0.1**	**0.02±0.00**	**194±18**	**507±37**	**1.5**	**1.74±0.18**	**0.8**	**2.79**
				PC to PC (E2)					
L23_PC	L23_PC	1.0±0.5	0.46±0.26	671±17	17±5	2.6	1.74±0.18	0.7	2.79
L4_PC	L4_PC	0.6±0.3	0.86±0.09	671±17	17±5	1.0	1.74±0.18	0.9	2.79
L4_SSC	L23_PC	0.2±0.1	0.79±0.04	671±17	17±5	1.8	1.74±0.18	0.5	2.79
L5_STPC	L5_STPC	0.9±0.3	0.39±0.03	690±90	44±21	1.0	1.74±0.18	0.7	2.79
L5_TTPC	L5_TTPC	1.9±1.0	0.38±0.10	365±100	25±45	2.8	1.74±0.18	0.7	2.79
L23_PC	L5_TTPC	0.5±0.2	0.50±0.02	671±17	17±5	1.5	1.74±0.18	0.7	2.79
L4_SSC	L5_STPC	0.6±0.3	0.50±0.02	671±17	17±5	1.2	1.74±0.18	0.7	2.79
L4_SSC	L6_PC	0.4±0.2	0.50±0.02	671±17	17±5	1.0	1.74±0.18	0.7	2.79
L6_TPC:A	L6_TPC:A	1.0±0.5	0.37±0.11	280±90	90±80	1.0	1.74±0.18	0.7	2.79
L6_TPC:C	L6_TPC:C	0.5±0.2	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_IPC	L6_IPC	0.9±0.3	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_PC to same L6_PC		**0.8±0.2**	**0.23±0.06**	**420±340**	**200±130**	**1.0**	**1.74±0.18**	**0.7**	**2.79**
L6_TPC:A	L6_TPC:C	1.2±0.5	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_TPC:A	L6_BPC	0.3±0.1	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_TPC:C	L6_IPC	0.2±0.1	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_IPC	L6_BPC	0.4±0.1	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_BPC	L6_TPC:A	0.2±0.1	0.23±0.06	420±340	200±130	1.0	1.74±0.18	0.7	2.79
L6_PC to diff. L6_PC		**0.5±0.4**	**0.23±0.06**	**420±340**	**200±130**	**1.0**	**1.74±0.18**	**0.7**	**2.79**
PC	**PC**	**0.7±0.4**	**0.50±0.02**	**671±17**	**17±5**	**1.5**	**1.74±0.18**	**0.7**	**2.79**
				PC to Sst-IN (E2)					
PC	NBC	0.6±0.4	0.72±0.12	227±70	13±24	4.5	1.74±0.18	0.8	1.09
PC	**PT**	**0.6±0.5**	**0.50±0.02**	**671±17**	**17±5**	**4.5**	**1.74±0.18**	**0.8**	**1.09**
PC	L1_GABAB-	0.3±0.1	0.50±0.02	671±17	17±5	1.5	1.74±0.18	0.8	1.94
L6_TPC:A	L6_BC	0.4±0.1	0.58±0.13	240±80	70±90	1.5	1.74±0.18	0.8	1.09
L6_TPC:C	L6_BC	0.4±0.1	0.36±0.21	380±310	280±340	1.5	1.74±0.18	0.8	1.09
L6_IPC	L6_BC	0.3±0.1	0.51±0.20	440±300	100±50	1.5	1.74±0.18	0.8	1.09
L6_PC	**L6_BC**	**0.4±0.1**	**0.47±0.21**	**370±290**	**155±215**	**1.5**	**1.74±0.18**	**0.8**	**1.09**
PC	**IN**	**0.4±0.1**	**0.50±0.02**	**671±17**	**17±5**	**1.5**	**1.74±0.18**	**0.8**	**1.94**

Proximal Targeting inhibitory mtypes: N/L/SBC, CHC. N/LBC etypes: cACint, cIR, bAC, bIR, cNAC have E1, while the rest of etypes; and SBC and CHC mtypes have E2 short-term dynamics.
Distal Targeting inhibitory mtypes: BP, DBC, BTC. L1_GABAB- comprise all non NGC mtypes in L1