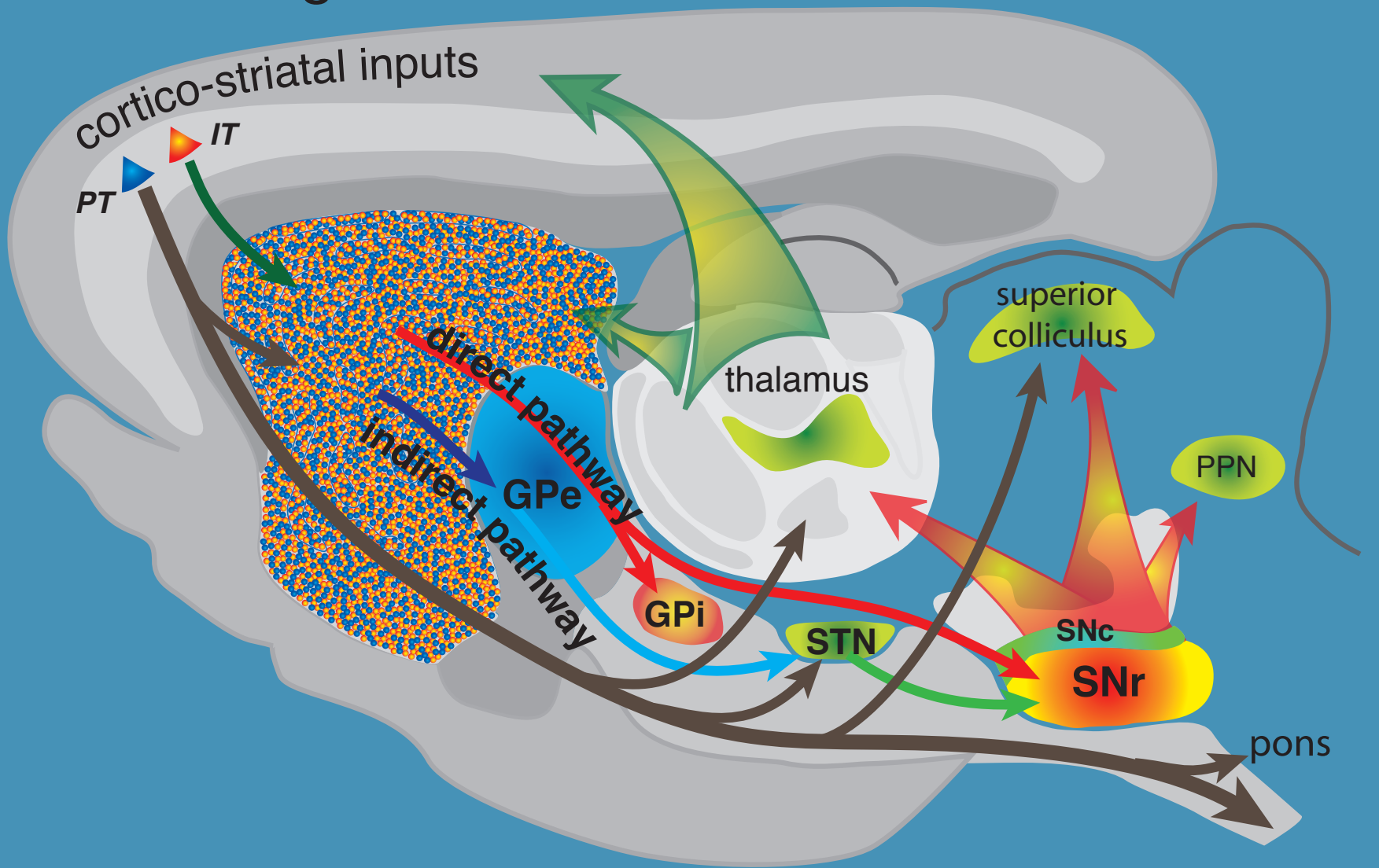
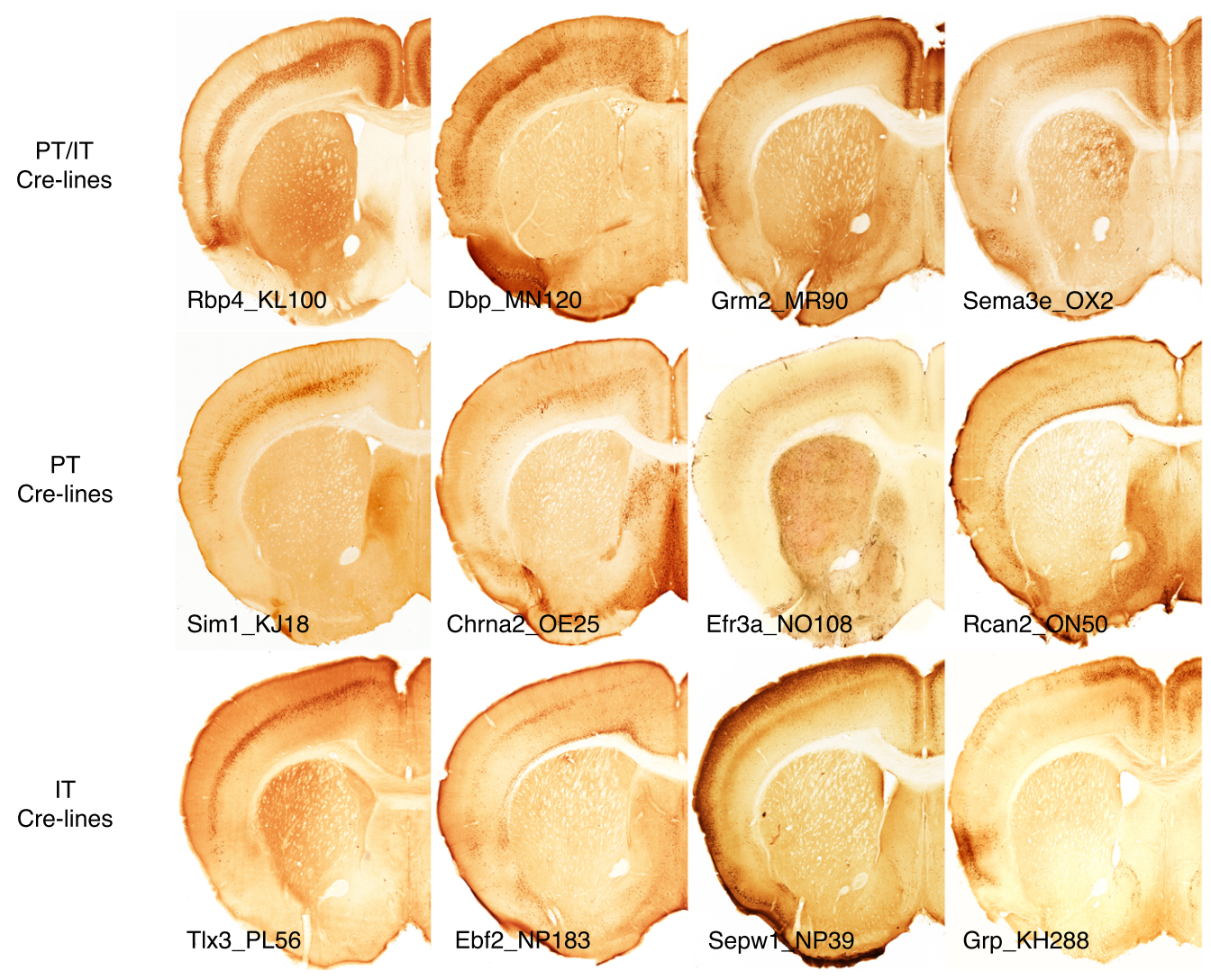
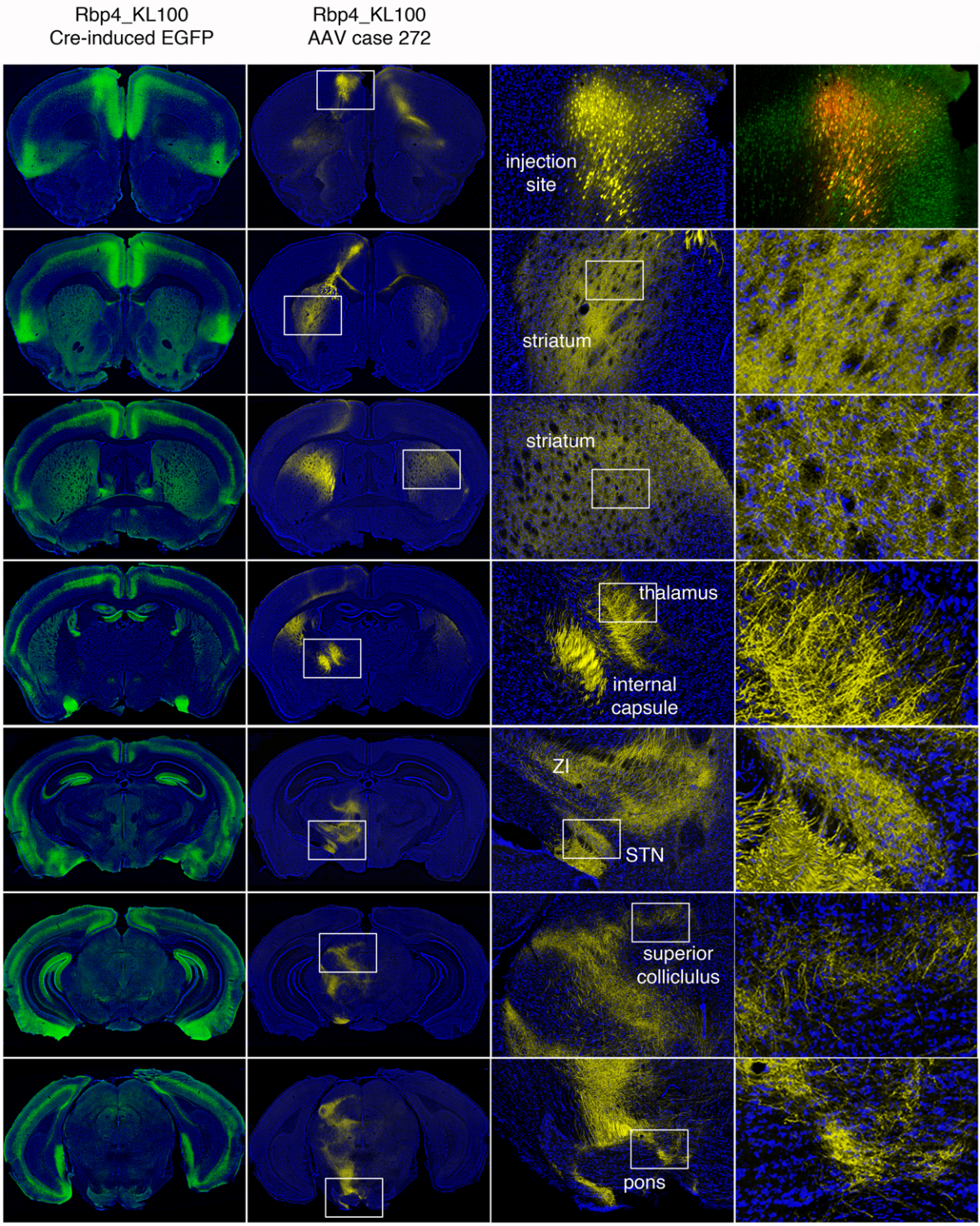
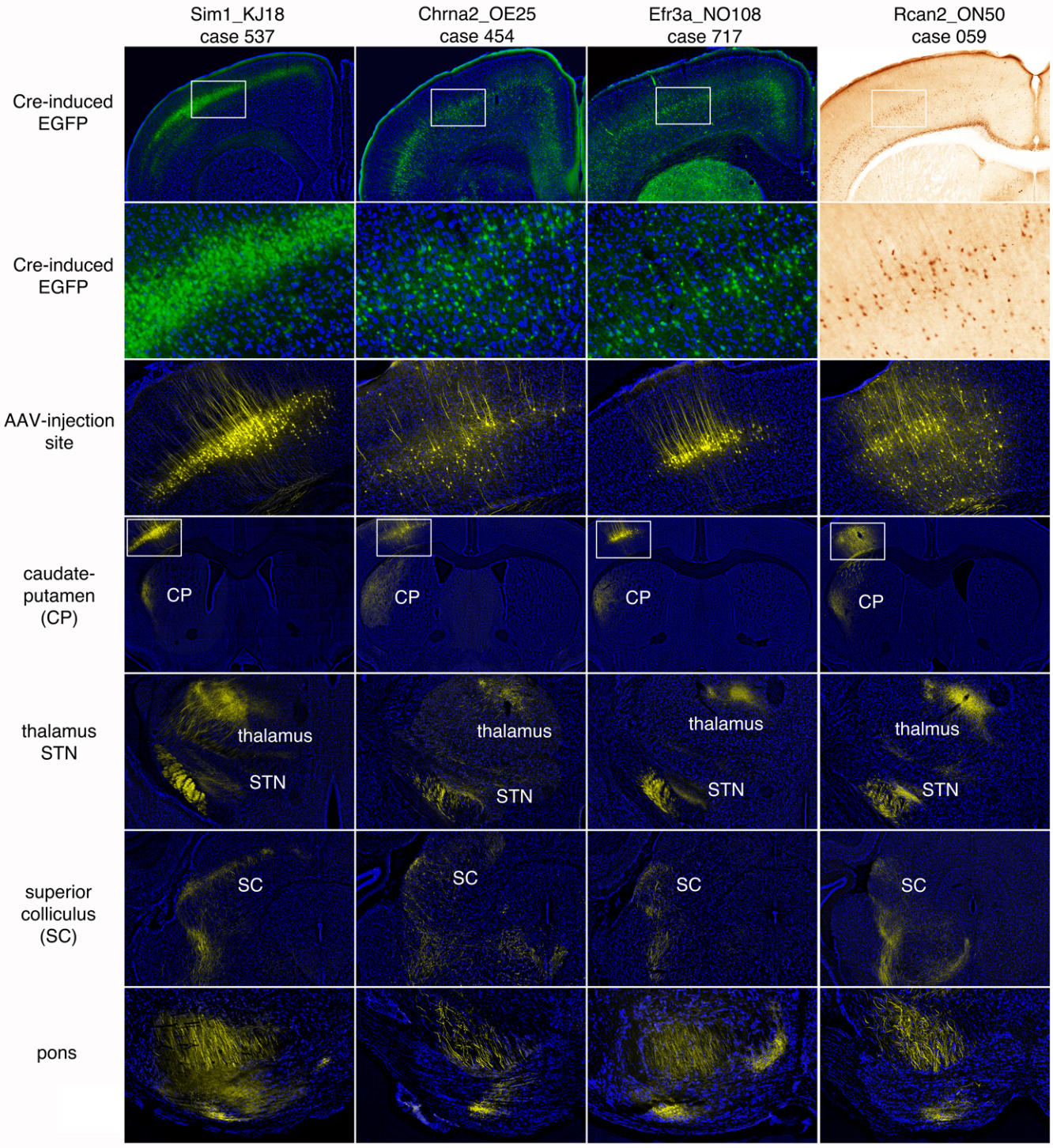
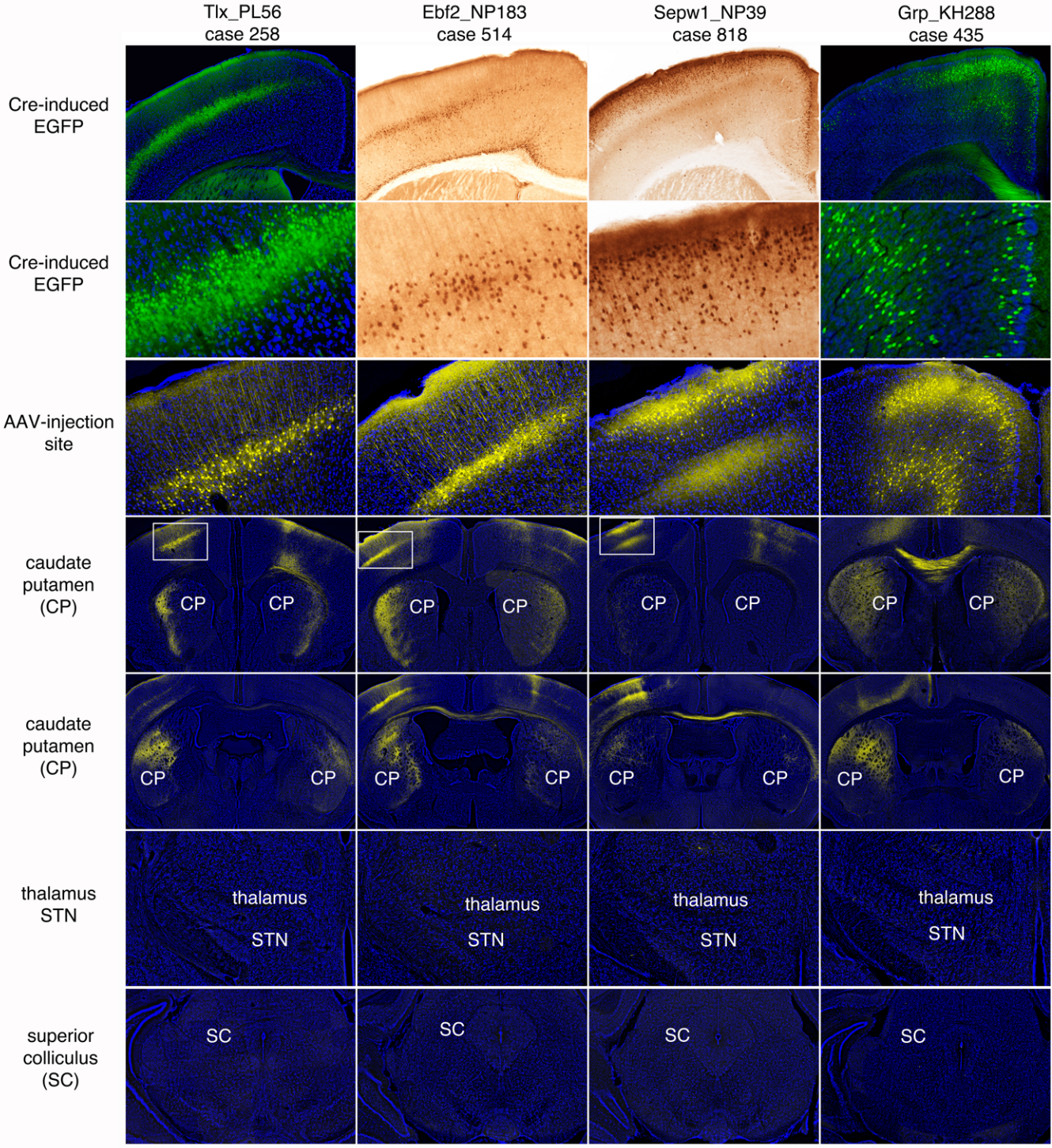
Basal Ganglia Circuits

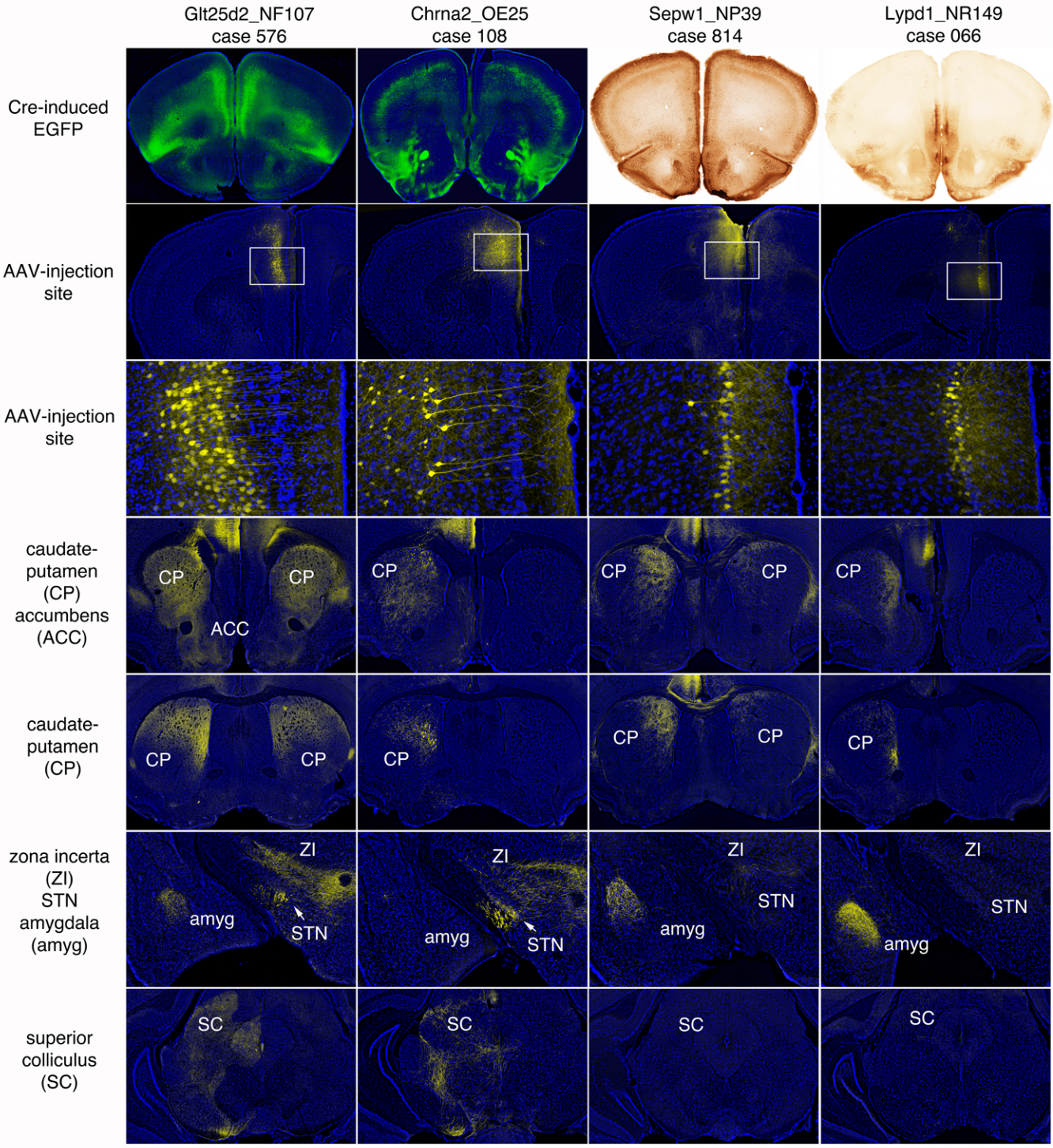


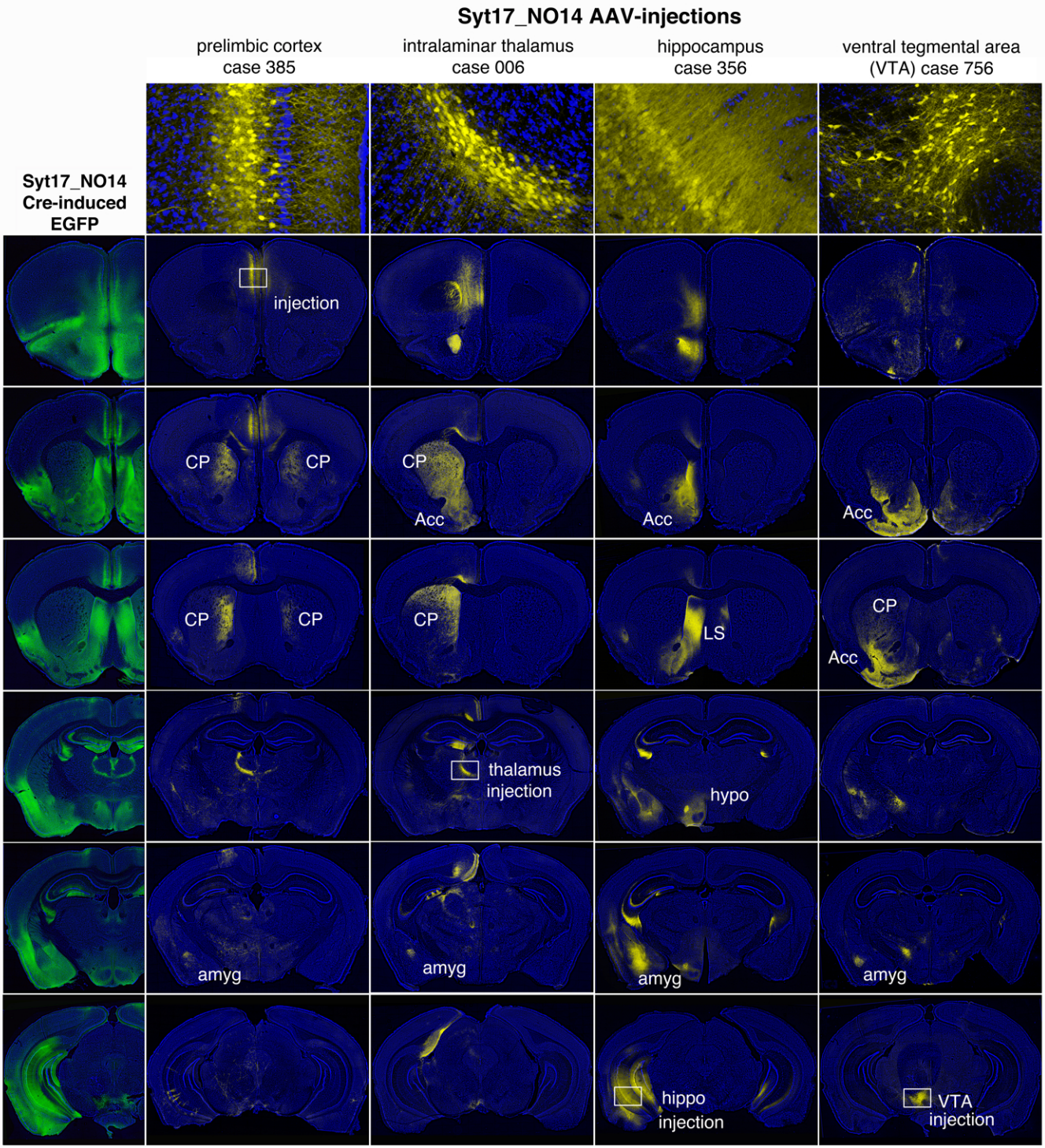

PT/IT
Cre-lines
Rbp4_KL100
Dbp_MN120
Grm2_MR90
Sema3e_OX2
PT
Cre-lines
Sim1_KJ18
Chrna2_OE25
Efr3a_NO108
Rcan2_ON50
IT
Cre-lines
Tlx3_PL56
Ebf2_NP183
Sepw1_NP39
Grp_KH288

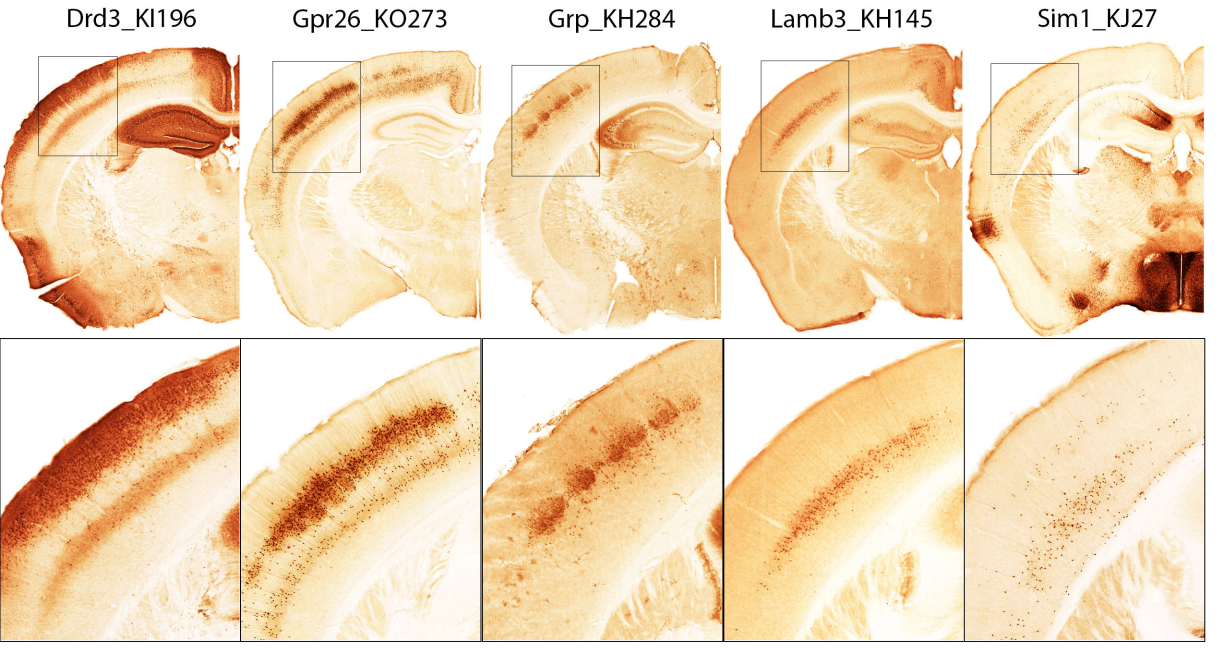

Rbp4_KL100
Cre-induced EGFP
Rbp4_KL100
AAV case 272
injection
site
striatum
striatum
thalamus
internal
capsule
ZI
STN
superior
colliclulus
pons


Sim1_KJ18
case 537
Chrna2_OE25
case 454
Efr3a_NO108
case 717
Rcan2_ON50
case 059
Cre-induced EGFP
Cre-induced EGFP
AAV-injection site
caudate-putamen (CP)
CP
CP
CP
CP
thalamus STN
thalamus
STN
thalamus
STN
thalamus
STN
thalmus
STN
superior colliculus (SC)
SC
SC
SC
SC
pons

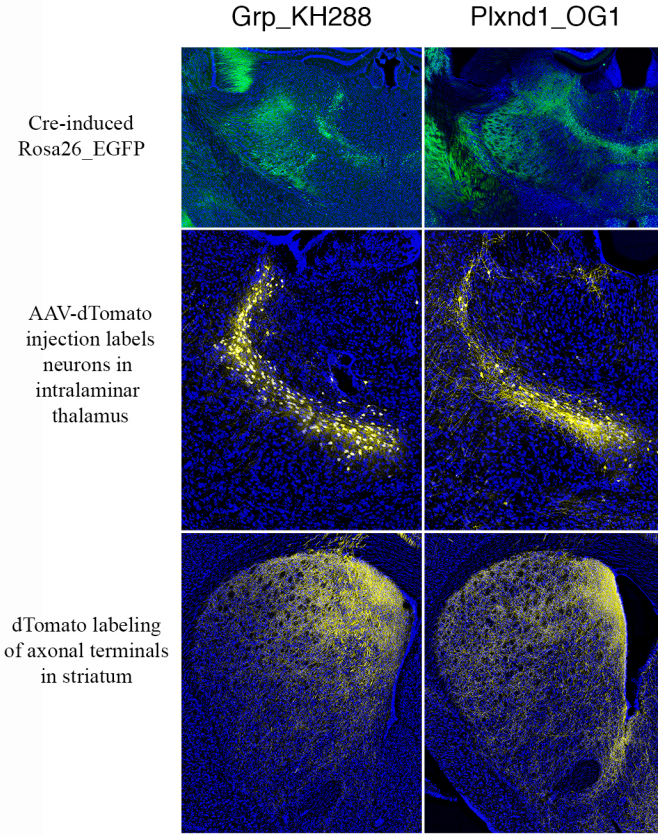

Tlx_PL56
case 258
Ebf2_NP183
case 514
Sepw1_NP39
case 818
Grp_KH288
case 435
Cre-induced EGFP
Cre-induced EGFP
AAV-injection site
caudate putamen (CP)
CP
CP
caudate putamen (CP)
CP
CP
thalamus STN
thalamus
STN
superior colliculus (SC)
SC

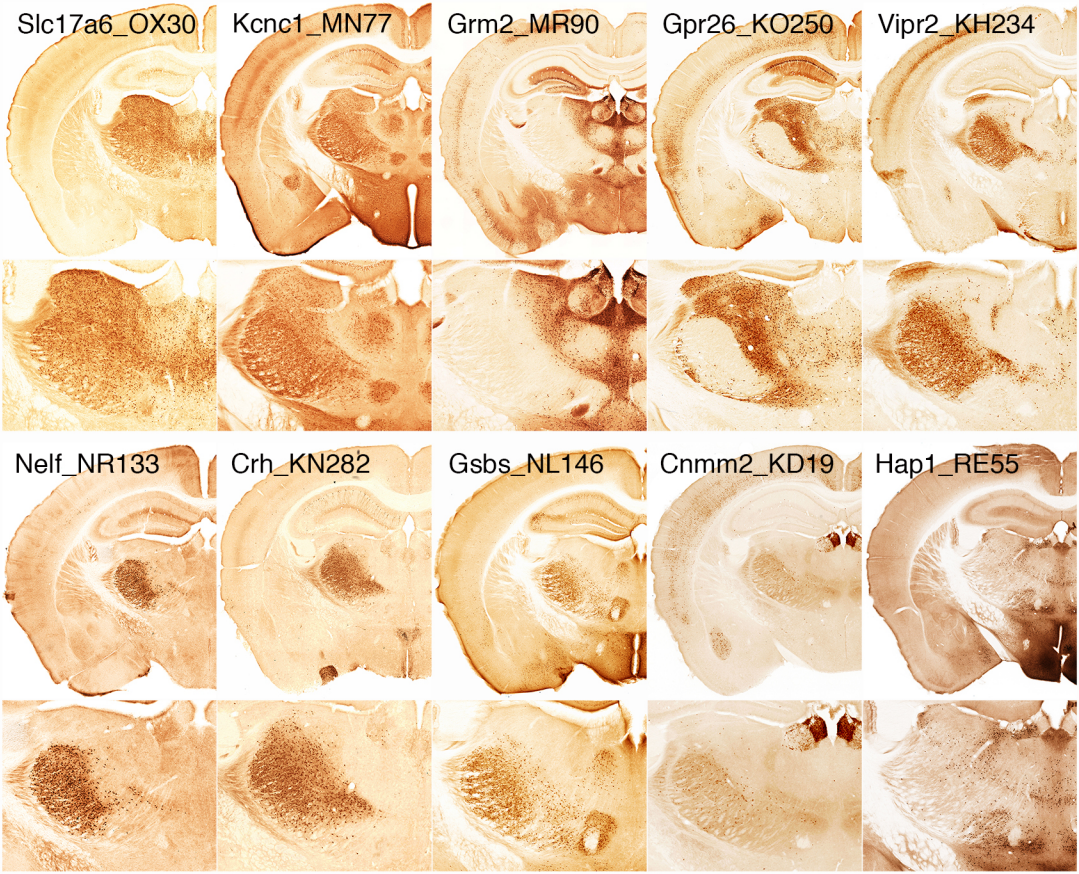

Glt25d2_NF107
case 576
Chrna2_OE25
case 108
Sepw1_NP39
case 814
Lypd1_NR149
case 066
Cre-induced EGFP
AAV-injection site
AAV-injection site
caudate-putamen (CP) accumbens (ACC)
CP
ACC
caudate-putamen (CP)
zona incerta (ZI) STN amygdala (amyg)
ZI
STN
amyg
superior colliculus (SC)
SC

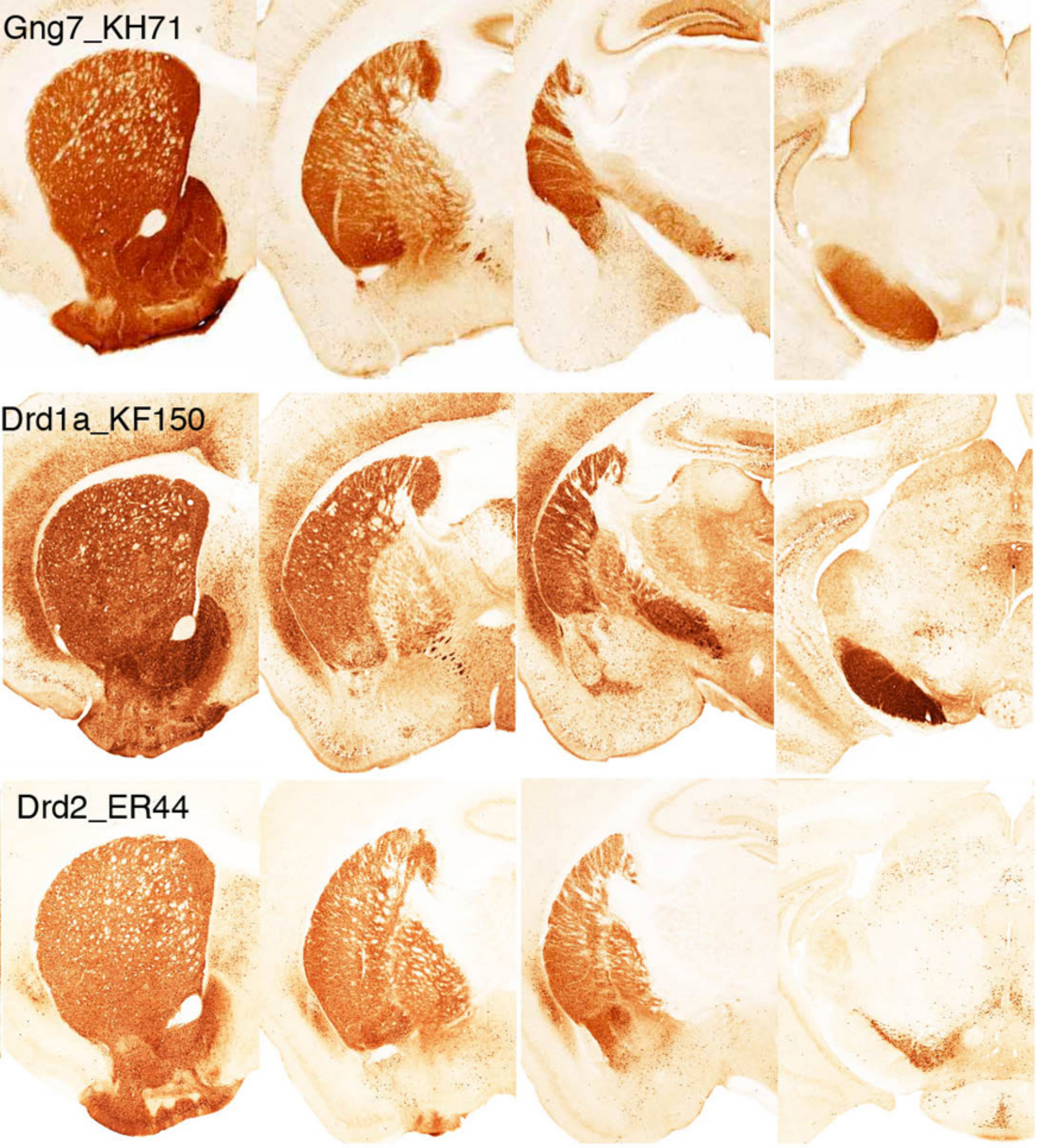

Syt17_NO14 AAV-injections
prelimbic cortex
case 385
intralaminar thalamus
case 006
hippocampus
case 356
ventral tegmental area
(VTA) case 756
Syt17_NO14
Cre-induced
EGFP
injection
CP
CP
CP
Acc
Acc
Acc
CP
CP
CP
LS
CP
Acc
thalamus
injection
hypo
amyg
amyg
amyg
amyg
hippo
injection
VTA
injection

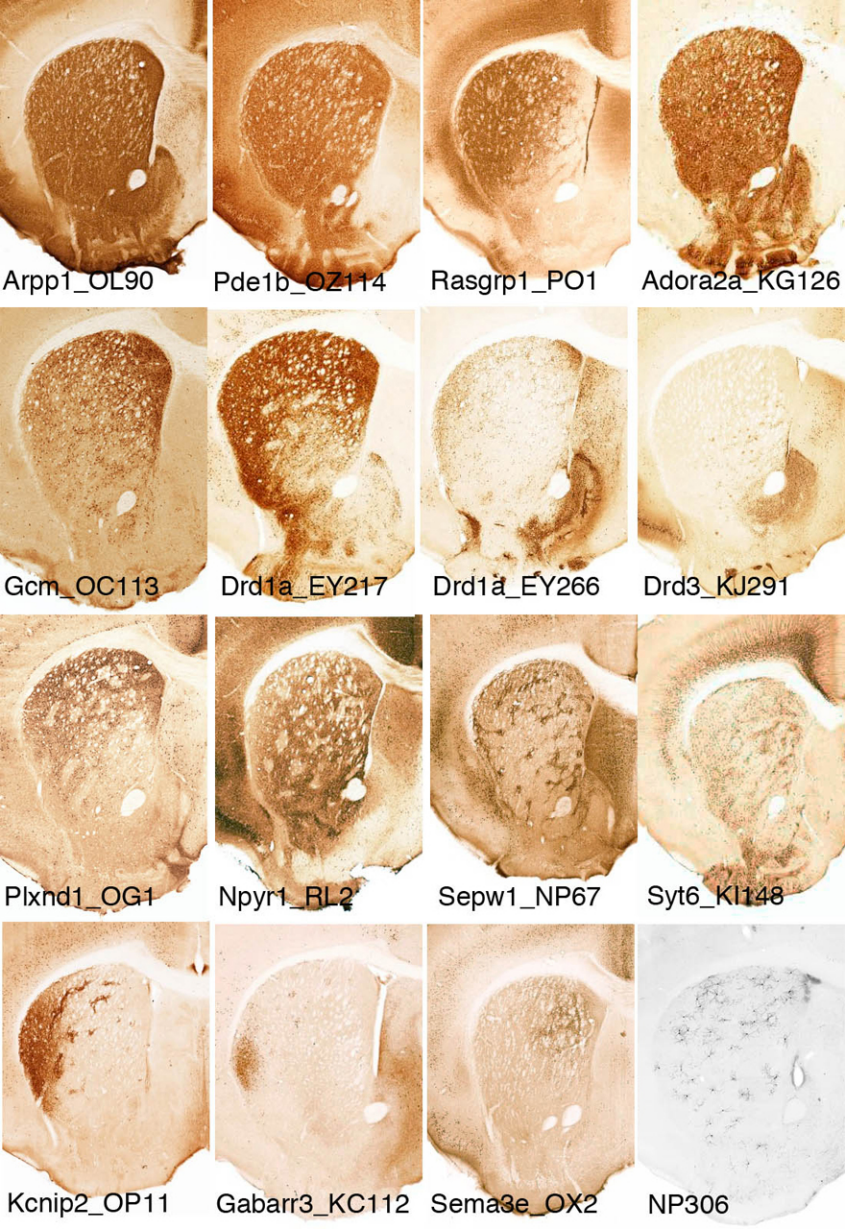

Drd3_KI196
Gpr26_KO273
Grp_KH284
Lamb3_KH145
Sim1_KJ27

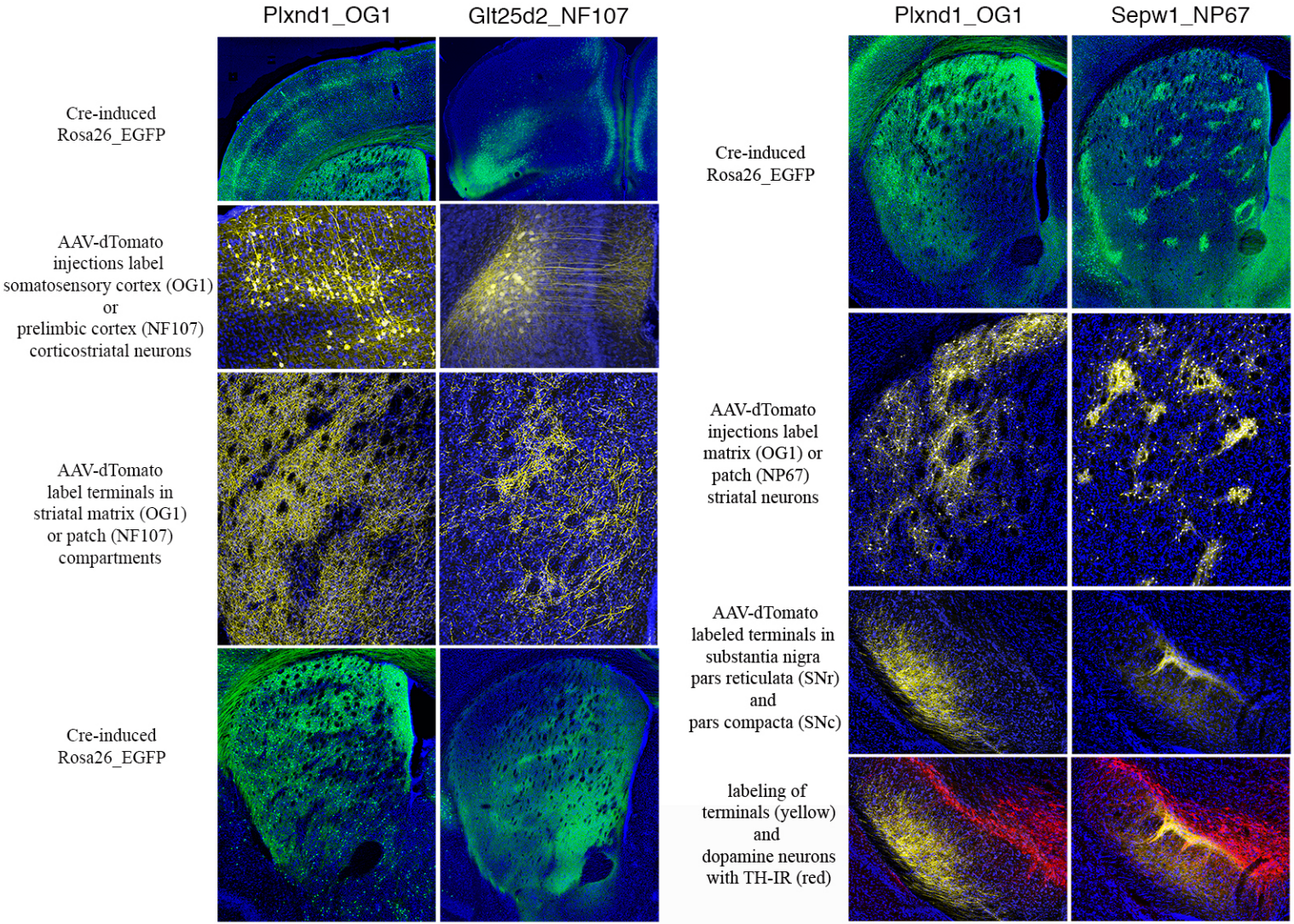
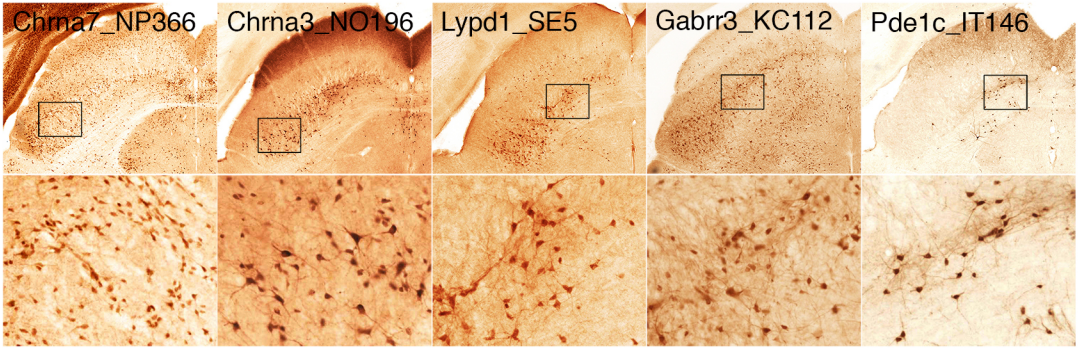
BAC-Cre lines for thalamo-striatal pathway




Slc17a6_OX30
Kcnc1_MN77
Grm2_MR90
Gpr26_KO250
Vipr2_KH234
Nelf_NR133
Crh_KN282
Gsbs_NL146
Cnmm2_KD19
Hap1_RE55


Gng7_KH71
Drd1a_KF150
Drd2_ER44


Arpp1_OL90
Pde1b_OZ114
Rasgrp1_PO1
Adora2a_KG126
Gcm_OC113
Drd1a_EY217
Drd1a_EY266
Drd3_KJ291
Plxnd1_OG1
Npyr1_RL2
Sepw1_NP67
Syt6_KI148
Kcnip2_OP11
Gabarr3_KC112
Sema3e_OX2
NP306


Plxnd1_OG1
Glt25d2_NF107
Plxnd1_OG1
Sepw1_NP67
Cre-induced
Rosa26_EGFP
AAV-dTomato
injections label
somatosensory cortex (OG1)
or
prelimbic cortex (NF107)
corticostriatal neurons
AAV-dTomato
label terminals in
striatal matrix (OG1)
or patch (NF107)
compartments
Cre-induced
Rosa26_EGFP
Cre-induced
Rosa26_EGFP
AAV-dTomato
injections label
matrix (OG1) or
patch (NP67)
striatal neurons
AAV-dTomato
labeled terminals in
substantia nigra
pars reticulata (SNr)
and
pars compacta (SNc)
labeling of
terminals (yellow)
and
dopamine neurons
with TH-IR (red)

BAC-Cre lines with expression in superior colliculus