

V2.1 DBS Tractography Atlas

Structures					
Former filename ¹	Complete anatomical name	New filename ²	Source/ Defined by	Based on	ROI
Ca	Caudate	Cd	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
EXA	Extended amygdala	EA	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
HN	Habenula	Hb	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
HTH	Hypothalamus	Hy	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
MN	Mammillary body	MB	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
NAC	Nucleus accumbens	Ac	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
PBP	Parabrachial pigmented nucleus	PBP	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
Pu	Putamen	Pu	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
SNc	Substantia nigra, pars compacta	SNc	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
SNr	Substantia nigra, pars reticulata	SNr	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
VeP	Ventral pallidum	VP	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
VTA	Ventral tegmental area	VTA	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹
GPe	External pallidum	GPe	DISTAL ⁽³⁾	ICBM 152 2009a & b (nonlinear; ⁴)	see ³
GPi	Internal pallidum	GPi	DISTAL ⁽³⁾	ICBM 152 2009a & b (nonlinear; ⁴)	see ³
GPi_temporal		GPi_temporal	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
GPi_sensory		GPi_sensory	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
GPi_sensorimotor		GPi_sensorimotor	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³ Sensorimotor = grouped motor/premotor/sensory zones
GPi_primarymotor		GPi_primarymotor	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
GPi_premotor		GPi_premotor	DISTAL ⁽³⁾	Structural connectivity, Parcellation	see ³

¹ until 07/2023² from 07/2023

GPI_prefrontal		GPI_prefrontal	DISTAL ⁽³⁾	according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾ Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
GPI_postparietal		GPI_postparietal	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
GPI_occipital		GPI_occipital	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
RN	Red nucleus	RN	DISTAL ⁽³⁾	ICBM 152 2009a & b (nonlinear; ⁴	see ³
STN	Subthalamic nucleus	STN	DISTAL ⁽³⁾	ICBM 152 2009a & b (nonlinear; ⁴	see ³
STN_associative		STN_associative	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
STN_motor		STN_motor	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
STN_limbic		STN_limbic	DISTAL ⁽³⁾	Structural connectivity, Parcellation according to Oxford Thalamic Connectivity Atlas ⁽⁵⁾	see ³
PPN	Pedunclopontine nucleus	PPN	see ⁶	DTI fractional anisotropy (FA) maps from in vivo and in situ post-mortem magnetic resonance images (MRI) & histological evaluation	See ⁶
STH	Subthalamic nucleus	STH	CIT168 ⁽¹⁾	i.a. HCP S500 subject release ⁽²⁾	see ¹

Tracts					
Former filename	Complete anatomical name	New filename	Defined by	Based on	ROI
ansa_lenticularis	Ansa lenticularis	al	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
ATR	Anterior Thalamic Radiation	atr	¹⁰	HCP 1021	Th-PC
DRTT_v1	Dentatorubrothalamic Tract	drtt-SMA	¹⁰	HCP 1021	DN-RN- VO - SMA (BA6)
DRTT	Dentatorubrothalamic Tract	drtt-M1	Rajamani et al. (2023, in prep.) ¹⁰	HCP 1021	DN-RN - VIM - M1 (BA4)
NDRTT	Non-decussating Dentatorubrothalamic Tract	ndrtt	¹⁰	HCP 1021	DN-RN - VIM - M1 (BA4)
lenticular_fasciculus	Fasciculus lenticularis	lenf	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
MFB	Medial Forebrain Bundle	mfb	¹⁰	HCP 1021	VTA-Ac-OC
stn2gpi_sm	Subthalamic nucleus to globus pallidus internus connection (sensorimotor fibres)	STN-GPi-sensorimotor	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
stn2gpi_ass	Subthalamic nucleus-to globus pallidus internus connection (associative fibres)	STN-GPi-associative	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
stn2gpe_sm	Subthalamic nucleus to globus pallidus externus connection (sensorimotor fibres)	STN-GPe-sensorimotor	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
stn2gpe_ass	Subthalamic nucleus-to globus pallidus externus connection (associative fibres)	STN-GPe-associative	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
gpe2stn_sm	Globus pallidus externus to subthalamic nucleus connection (sensorimotor fibres)	GPe-STN-sensorimotor	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
gpe2stn_ass	Globus pallidus externus to subthalamic nucleus connection (associative fibres)	GPe-STN-associative	⁷	Expert neuroanatomist's definition, foundation: Morel atlas (^{8,9}) & CIT168 (¹)	see ⁷
STN-SNr	Subthalamic nucleus to substantia nigra	STN-SNr	¹¹	HCP 1065	see ¹¹

STN-SNc	pars reticulata connection Subthalamic nucleus to substantia nigra pars compacta connection	STN-SNc	¹¹	HCP 1065	see ¹¹
vtaPP_slMFB	VTA projection pathway (formerly slMFB: supero-lateral branch of the medial forebrain bundle)	VTA _{pp}	¹⁰	HCP 1021	DN-VTA-SFG-MFG-lateral OFV
GPI_PPN	Globus pallidus internus to pedunclopontine nucleus connection	GPI-PPN	Rajamani et al. (2023, in prep.)	HCP 1065	GPI-PPN (PPN segmentation according to ⁶)
PPN2Precentral	Pedunclopontine nucleus to M1 connection	PPN-M1	Rajamani et al. (2023, in prep.)	HCP 1021	PPN-M1 (BA4)
PPN2SMA	Pedunclopontine nucleus to SMA connection	PPN-SMA	Rajamani et al. (2023, in prep.)	HCP 1021	PPN-SMA (BA6)
STN_PPN	Subthalamic nucleus to pedunclopontine nucleus connection	STN-PPN	Rajamani et al. (2023, in prep.)	HCP 1065	STN-PPN (PPN segmentation according to ⁶)
Ventral_Trigeminal	Ventral trigeminothalamic tract	vttt	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Dorsal_Trigeminal	Dorsal trigeminothalamic tract	dttt	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Rubro_Cortical	Rubrocortical tract	rct	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Rubro_Spinal	Rubrospinal tract	rst	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Rubro_Cerebellar	Rubrocerebellar tract	rct	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Rubro_Olivary	Rubroolivary tract	rot	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
Med_Lemniscus	Medial lemniscus	ml	Rajamani et al. (2023, in prep.)	HCP 1021	Manual ROI definitions
BA8	STN to Brodman area 8 connection	STN-BA8	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN -frontal eye fields
BA6	STN to Brodman area 6 connection	STN-BA6	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN -Supplementary Motor Area
BA45_47	STN to Brodman area 45 and 47 connections	STN-BA45BA47	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN - Inferior Frontal Gyrus
BA4	STN to Brodman area 4 connection	STN-BA4	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN - Primary Motor Cortex
BA25	STN to Brodman area 25 connection	STN-BA25	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN -subgenual anterior cingulate cortex

BA24_32	STN to Brodman area 24 & 32 connection	STN-BA24BA32	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN - Dorsal anterior Cingulate Cortex & Preguneal Anterior Cingulate Cortex
BA1_2_3	STN to Brodman area 1 & 2 & 3 connection	STN-BA1BA2BA3	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN -Somatosensory Cortex (1°, 2°, 3°)
BA13	STN to Brodman area 13 connection	STN-BA13	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN - Insular cortex
BA10	STN to Brodman area 10 connection	STN-BA10	Rajamani et al. (2023, in prep.)	Cortical Atlas by ¹² & HCP 1065	STN - Fronto-Parietal cortex

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