

## *Supplementary Material*

### **Towards a Common Terminology for the Thalamus**

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### **Supplementary Tables**

**Table 1.** Recommended nomenclature for the human thalamic nuclei. Listed in parenthesis are references which show the emergence of the itemized terms together with some equivalent designations.

## Thalamus (*His, 1893*)

### Intralaminar Formation (IL) (*Sheps, 1945, H: medial nuclear group;*

|      |                                                                                                                                        |
|------|----------------------------------------------------------------------------------------------------------------------------------------|
| ILA  | anterior group of the intralaminar nuclei (TNA)                                                                                        |
| CeM  | central medial nucleus ( <i>Gurdjian, 1927, rt: Ncl. centralis; Rioch, 1929, dg, ct; Le Gros Clark, 1932; Sheps, 1945, H</i> )         |
| CeL  | central lateral nucleus ( <i>Rioch, 1929, dg, ct; Le Gros Clark, 1932; Sheps, 1945, H; Friedemann, 1911, mk: Ncl. paralamellaris</i> ) |
| PCe  | paracentral nucleus ( <i>Gurdjian, 1927, rt; Rioch, 1929, dg, ct; Sheps, 1945, H</i> )                                                 |
| Cuc  | cucullar nucleus ( <i>Hassler, 1959</i> )                                                                                              |
| Fa   | fasciculosus nucleus ( <i>C. Vogt, 1909, mk; Le Gros Clark, 1932: Ncl. ventralis pars anteromedialis</i> )                             |
| ILCe | central group of intralaminar nuclei (TNA)                                                                                             |
| CM   | centromedian nucleus ( <i>Luys, 1865, centre médian</i> )                                                                              |
| PF   | parafascicular nucleus ( <i>Vogt and Vogt, 1902, H, campus PF; Friedemann, 1911, mk; Sheps, 1945, H</i> )                              |
| SPf  | subparafascicular nucleus ( <i>Papez and Aronson, 1934, mk; Rioch, 1929, dg, ct</i> )                                                  |
| ILP  | posterior group of intralaminar nuclei (TNA)                                                                                           |
| Lim  | limitans nucleus ( <i>Friedemann, 1911, mk; Rioch, 1929, dg, ct; Sheps, 1945, H</i> )                                                  |
| SGe  | suprageniculate nucleus ( <i>Münzer and Wiener, 1902, rb; Friedemann, 1911, mk; Sheps, 1945, H</i> )                                   |

### Periventricular Formation (PeF) and Midline Nuclei (MN) (*Nissl, 1889, rb: Mittellinienkerne; Sheps, 1945, H: midline group; Dewulf, 1971, H*)

|                                                                                       |                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| subependymal nuclei (periventricular gray matter of thalamus, <i>Sheps, 1945, H</i> ) |                                                                                                                                                                                                   |
| PeV                                                                                   | periventricular nucleus ( <i>Sheps, 1945, H</i> )                                                                                                                                                 |
| dorsal component of midline nuclei                                                    |                                                                                                                                                                                                   |
| PT                                                                                    | paratenial nucleus (TNA); ( <i>Vogt, 1909, mk; Friedemann, 1911, mk; Gurdjian, 1927, rt; Sheps, 1945, H</i> )                                                                                     |
| PV                                                                                    | paraventricular nucleus (TNA); ( <i>Gurdjian, 1927, rt; Sheps, 1945, H; Hassler, 1959, H: Ncl. paramedianus</i> )                                                                                 |
| ventral component of midline nuclei                                                   |                                                                                                                                                                                                   |
| Re                                                                                    | reuniens nucleus ( <i>Malone, 1910, H; Gurdjian, 1927, rt; Grünthal, 1943, H: Ncl. medialis posterior reuniens; Sheps, 1945, H; Hassler, 1959, H: Ncl. endymalis</i> )                            |
| SM                                                                                    | submedius nucleus ( <i>Vogt, 1909, mk; Friedemann, 1912, mk: Ncl. submedialis, mv; Krieg, 1944, rt; Sheps, 1945, H</i> ); medial ventral nucleus ( <i>Gurdjian, 1927, rt; Grünthal, 1934, H</i> ) |

### Anterodorsal Region (A) (*Friedemann, 1911, mk, pars anterodorsalis; Percheron, 2004, superior region*) (anterior group nuclei, AN; anterior nuclear group, Ncll. anterior thalami) (*Luys 1865: centre antérieur; Burdach, 1822: oberer Kern; Vogt, 1909, mk: partie antéro-dorsale; Crouch, 1934, mk; Walker, 1938, mk: Ncl. lateralis dorsalis*)

|    |                                                                                                                                                                                                                        |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AV | anteroventral nucleus ( <i>Gurdjian, 1927, rt; Sheps, 1945, H</i> ); anteropincipal nucleus ( <i>von Monakow, 1895, ct,dg, H: ant a; Vogt, 1909, mk; Hassler, 1959</i> ); Ncl. dorsalis magnus ( <i>Niimi, 1949</i> ). |
| AM | anteromedial nucleus ( <i>Sheps, 1945, H;</i> )                                                                                                                                                                        |
| AD | anterodorsal nucleus ( <i>von Monakow, 1895, ct,dg, H: lat.; Gurdjian, 1927, rt; Sheps, 1945, H;</i> )                                                                                                                 |

DSf dorsal superficial nucleus (*Vogt & Vogt, 1941, H: superficiae caudale; Hassler, 1959*); lateral dorsal nucleus (*Sheps, 1945, H; von Monakow, 1895: noyau antérieure accessoire, ant c; Koelliker, 1896: noyau intermédiaire*)

**Medial Region (M)** (*Vicq d'Azyr, 1796; Burdach, 1822, Ncl.cinereus internus; Luys, 1890, centre moyen; Foix and Nicolesco, 1925; Grünthal, 1934, H: Ncl. internus*)

MD mediodorsal nucleus (TNA); (*von Monakow, 1895, ct,dg, H: med.a; Vogt, 09; Gurdjian, 1927, rt: Ncl. medialis dorsalis; Vogt & Vogt, 1941, H: mediale dorsale*)  
MDM medial mediodorsal nucleus (TNA; magnocellular MD; Ncl. medialis fibrosus, *C. Vogt, 1909, mk*)  
MDCe central mediodorsal nucleus (parvicellular MD, Ncl. medialis fasciculosus)  
MDL lateral mediodorsal nucleus (TNA; paralaminar [paralamellar] MD; Ncl. densocellularis / multiformis)

**Lateral Region (L)** (*Burdach, 1819-1926, H: äußerer Kern, Ncl. cinereus externus; von Monakow, 1895, H: lateraler Kern; Déjérine & Déjérine-Klumpke, 1895: noyau externe; Vogt and Vogt, 1941, H: laterale*)

Motor Thalamus

VA ventroanterior nucleus (ventral anterior nucleus, TNA; Ncl. ventralis anterior) [indirect striatal and amygdaloid territory] (*Rioch, 1929, dg, ct; Walker, 1938, mk; von Monakow, 1895, H: lateralis b; Grünthal, 1934, H: Ncl. lateralis anterior B; Sheps, 1945, H: Ncl. ventralis anterior;*)  
VAM medial ventroanterior nucleus (VAmc, magnocellular ventroanterior nucleus, TNA) (nigral territory) (*Van Buren & Borke, 1972, H: lateropolaris – fasciculosus complex*)  
VAL lateral ventroanterior nucleus (VAp, principal ventroanterior nucleus, TNA) (pallidal territory) (*Walker, 1938, mk; Van Buren & Borke, 1972, H: Ncl. ventro-oralis*)  
VAb basal ventroanterior nucleus (*Mai & Forutan, 2012*). (VAMb, entry zone of nigral and amygdaloid afferents; VALb, entry zone of pallidal afferents)  
  
VL ventrolateral nucleus (ventral lateral complex, TNA; Ncl. ventralis lateralis) [cerebellar and vestibular territory] (*von Monakow, 1895, H: vent c; Vogt C, 1909, mk: noyau ventral intermédiaire; Walker, 1938, mk; Vogt and Vogt, 1941, H: Ncl. ventrale intermedium; Ncl. ventralis intermedium*)  
VLA anterior ventrolateral nucleus (TNA, medial oral division, VLM)  
VLP posterior ventrolateral nucleus (TNA, lateral caudal division, VML)  
    VLPi posterior ventrolateral nucleus, internal part  
    VLPe posterior ventrolateral nucleus, external part  
VLb basal (inferior) ventrolateral nucleus (entry zone of cerebellar fibers) (*Mai & Forutan, 2012*)

Sensory Thalamus

VP ventroposterior nucleus or complex, TNA (ventral posterior nucleus or complex; Ncl. ventralis posterior) [somato- and visceral sensory territory] (*Walker, 1938, mk: Ncl. ventralis posterior; Vogt and Vogt, 1941, H: Ncl. ventrale caudale*), ventrobasal complex (*Rose, 1935, rb: ventrobasal complex [VPL+VPM]*)  
VPL lateral ventroposterior nucleus (ventralis posterolateral nucleus; TNA; Ncl. ventralis postero-lateralis) (*Foix and Nicolesco, 1925, H; Sheps, 1945, H*)  
VPM medial ventroposterior nucleus (ventral posteromedial nucleus, TNA; Ncl. ventralis postero-medialis) (*Sheps, 1945, H*) (*von Monakow, 1895: vent b, H; von Tschisch, 1896: schalenförmiger Kern; Flechsig, 1876: Ncl. semilunaris, H; Koelliker, 1896: Ncl. arcuatus, H; Ncl. posterointernus*)  
VPS superior ventroposterior nucleus (*Sheps, 1945, H: ncl.ventralis posterior intermedialis; Kaas et al., 1984, mk; Kaas, 2012, H*) (*Friedman & Jones, 1981, mk: VP "shell"; Dykes, 1983, oral ventroposterior nucleus, VPO*)  
VPMpc medial ventroposterior nucleus, parvocellular part (ventral posteromedial nucleus, parvocellular part, TNA; Ncl. ventroposterior medialis, pars parvocellularis (*Friedemann, 1911, mk; Olszewski, 1952, mk*), Ncl. ventralis arcuatus (*Aronson and Papez, 1934*); Ncl. ventromedialis posterior (*Rose, 1935, rb*), ventral medial basal nucleus, VMb (*Jones, 2007; Berman & Jones, 1982, ct: basal ventromedial nucleus*) (*Toncray and Krieg, 1946, H: Ncl. semilunaris accessorius*)  
VPb basal ventroposterior nucleus [VMpo] (entry zone of sensory afferents) (*Mai and Forutan, 2012*)

Metathalamus (Geniculate Region)

LG lateral geniculate nucleus (*Gratiolet, 1839: corps genouillé externe; Henle, 1871: Corpus geniculatum laterale; Meynert, 1870, H: Corpus geniculatum externum*)

|     |                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LGD | dorsal lateral geniculate nucleus, TNA ( <i>Longet, 1847-1849; Luys, 1865; Meynert, 1870, H: Corpus geniculatum internum; Henle, 1871: Corpus geniculatum laterale</i> )<br>magnocellular layers ( <i>von Monakow, 1885, ct,dg, H; Malone, 1910</i> )<br>parvocellular layers <i>von Monakow, 1885, ct,dg, H; Malone, 1910</i> )<br>koniocellular layers <i>Hendry and Reid, 2000</i> |
| PG  | pregeniculate nucleus ( <i>Vogt and Vogt, 1902, H: Griseum praegeniculatum</i> ) (LGV, ventral lateral geniculate nucleus)                                                                                                                                                                                                                                                            |
| MG  | medial geniculate nucleus, TNA ( <i>Malone, 1910</i> )<br>MGD MG, dorsal division ( <i>Vogt, 1909, mk: Noyau fibreux</i> )<br>MGV MG, ventral division ( <i>Vogt, 1909, mk: Noyau fibreux</i> )<br>MGmc MG, magnocellular division ( <i>Vogt, 1909, mk: Noyau gris</i> )<br>MGL MG, limitans division ( <i>Hassler, 1959, H</i> )                                                     |

## Posterior Region (P) (*Luys, 1865, centre postérieur*)

|       |                                                                                                     |
|-------|-----------------------------------------------------------------------------------------------------|
| Pul   | pulvinar nuclei, TNA (pulvinar ( <i>Burdach, 1822, H; Grünthal, 1934, H</i> ), pulvinar-LP complex) |
| APul  | anterior (oral) pulvinar nucleus, TNA ( <i>Vogt &amp; Vogt, 1941, H</i> )                           |
| ADPul | anterodorsal pulvinar nucleus (lateral posterior nucleus) ( <i>Mai and Forutan, 2012, H</i> )       |
| IGPul | intergeniculate pulvinar nucleus ( <i>Malone 1910, H</i> )                                          |
| IPul  | inferior pulvinar nucleus, TNA ( <i>Sheps, 1945, H</i> )                                            |
| LPul  | lateral pulvinar nucleus, TNA ( <i>Sheps, 1945, H</i> )                                             |
| MPul  | medial pulvinar nucleus, TNA ( <i>Sheps, 1945, H</i> )                                              |
| SFPul | superficial pulvinar nucleus ( <i>Hassler, 1959, H</i> )                                            |

## Prethalamus

|     |                                                                 |
|-----|-----------------------------------------------------------------|
| PRt | prereticulate nucleus ( <i>Mai and Forutan, 2012</i> )          |
| Rt  | reticulate nucleus ( <i>Arnold, 1851: Stratum reticulatum</i> ) |
| Fa  | fasciculosus nucleus ( <i>Hassler, 1959</i> )                   |

## Epithalamus

|     |                                                                |
|-----|----------------------------------------------------------------|
| HB  | habenular nucleus ( <i>Meynert, 1870: ganglion habenulae</i> ) |
| HBL | lateral habenular nucleus                                      |
| HBM | medial habenular nucleus                                       |

**Abbreviations:** ct: cat; dg: dog; H: human; mk: monkey; rb: rabbit; sh: sheep

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**Supplementary Table 2.** Terminology of the major nuclei and the subdivisions of the human thalamus

| Hassler 1959; 1977                                                            | Feremutsch & Simma 1971               | Hopf 1971                                               | Van Buren & Borke 1972                             | Hirai & Jones 1989; Jones, 1990, 1998                                             | Percheron 2004                                                   | Morel 2007                                        | Ilinsky et al., 2018                          | Ding et al., 2016                                           | TNA (2017)                                            | Mai, Majtanik, 2018                                    |
|-------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|
| Envelope<br>(Involucrum mediale)                                              | F.IIa<br>Formatio intralamellaris     | Hüllgebiet                                              | III A<br>Intralaminar region                       | Intralaminar group<br>(internal medullary lamina)                                 | Allothalamus<br>(Involucrum)<br>Formatio intralaminaris-limitans | Medial group<br>(IL,MD, Midline nuclei)           |                                               | AILN<br>Intralaminar nuclear complex                        | Intralaminar nuclei                                   | Intralaminar formation (region)                        |
| iLa<br>Ncl. intralaminaris anterior                                           | Ncl. intralamellaris                  |                                                         |                                                    | Anterior intralaminar group                                                       |                                                                  |                                                   |                                               | Anterior group                                              | Anterior group of intralaminar nuclei                 | ILA Anterior group                                     |
| Fa<br>Ncl. fasciculosus                                                       | N.fa<br>Ncl. fasciculosus             | Fa<br>Ncl. fasciculosus                                 | Fa<br>Ncl. fasciculosus                            | part of medioventral ncl.                                                         |                                                                  |                                                   |                                               | Fa<br>fasciculosus ncl.                                     |                                                       | Fa<br>fasciculosus ncl.                                |
| Co<br>Ncl. commissuralis<br>(Ncl. centralis medialis)                         | N.ila.c.m<br>pars centralis medialis  | Co + med part of Pm                                     | Co<br>Ncl. commissuralis                           | CeM central medial ncl.<br>Rh rhomboid ncl.<br>CL post central lateral ncl.       | med. part of CeM                                                 | CeM<br>MV ?                                       | CeM<br>Cdc central densicellular ncl.         | CeM<br>central medial ncl.                                  | CM<br>central medial ncl.                             | CeM<br>central medial ncl.<br>dorsal part of Re,       |
| La<br>Ncll. intralamellares<br>(oralis, intermedius, caudalis)                | N.ila.c.l<br>pars centralis lateralis |                                                         | iLa<br>N. intralamellaris<br>(CeL + PC)            | CL + Pc<br>central lateral ncl.,<br>paracentral ncl.                              | Ilo<br>Situs intra-laminaris oralis                              |                                                   | Cln<br>central lateral ncl.                   | CL<br>central lateral ncl.<br>(m,l,d,c divisions)           | CL<br>central lateral ncl.                            | CeL<br>central lateral ncl.                            |
|                                                                               | N.ila.pc<br>pars paracentralis        |                                                         |                                                    |                                                                                   |                                                                  |                                                   | PC<br>paracentral ncl.                        | PC<br>paracentral ncl.                                      | Pc<br>paracentral ncl.                                | PcE<br>paracentral ncl.                                |
| Cu<br>Ncl. cucullaris                                                         |                                       | Cu<br>Ncl. cucullaris                                   | iLrc ?<br>Ncl. intralamellaris<br>pars orodorsalis | dorsomedial CL                                                                    | CL                                                               | CL                                                | Cs<br>central superior ncl.                   | CD<br>central dorsal ncl.                                   |                                                       | Cuc<br>cucullar ncl.                                   |
| iLm<br>Ncl. intralaminaris medialis                                           |                                       |                                                         |                                                    | Posterior intralaminar group                                                      | Formatio or R. centralis C                                       |                                                   |                                               | Posterior group                                             | Central group of intralaminar nuclei                  | ILC Central group                                      |
| Ce<br>Ncl. centralis thalami<br>(pc, mc)                                      | N.ce<br>Ncl. centralis                | Ce<br>Ncl. centralis<br>(Ce.mc; Ce.pc)                  | Ce<br>Ncl. centralis                               | CM<br>centre médian,<br>part CM/Pf                                                | CPf<br>ncl. centralis medius                                     | CM                                                | CM/Pf<br>centromedian/<br>parafascicular ncl. | CM<br>centromedian ncl. (l,m)                               | CMn<br>centromedian ncl.                              | CM<br>Ncl. centrum medianum<br>(CMmc, CMpc)            |
| Pf<br>Ncl. parafascicularis                                                   | N.pf<br>Ncl. parafascicularis         | Pf                                                      | Pf<br>Ncl. parafascicularis                        | Pf<br>parafascicular ncl.                                                         | CPf ncl. centralis parafascicularis                              | Pf                                                |                                               | Pf<br>parafascicular ncl. (l,m)                             | Pf<br>parafascicular ncl.                             | PF<br>parafascicular ncl.                              |
| V.c.pc.i (part)<br>Ncl. ventro-caudalis<br>parvocellularis internus           |                                       |                                                         |                                                    | SM<br>submedial ncl.                                                              | sPf                                                              | sPf                                               |                                               | SPf / RPf<br>subparafascicular ncl./<br>retroparafasc. ncl. | SPf<br>subparafascicular ncl.<br>SM<br>submedial ncl. | SM<br>Ncl. submedius<br>SPf<br>subparafascicular ncl.  |
| iLc<br>Ncl. intralaminaris caudalis                                           |                                       | iLa.m.c<br>Ncl. intralamellaris medialis, pars caudalis |                                                    | Posterior group                                                                   |                                                                  |                                                   | LSG limitans/<br>suprageniculat e ncl.        | LSG<br>limitans/supra-geniculatus                           | Posterior group of intralaminar nuclei                | ILP Posterior group                                    |
| Li<br>Ncl. limitans<br>Li.m<br>Ncl. limitans med.<br>Ncl. suprageniculatus    | N.li<br>Ncl. limitans                 | Li<br>Ncl. limitans                                     | Li<br>Ncl. limitans<br>Li.m<br>Ncl. limitans med.  | Li/Sg<br>limitans/ suprageniculate ncl.<br>part of CL post. to MD                 | Li                                                               | Posterior complex:Li, Sg,<br>Po<br>posterior ncl. | Li<br>limitans ncl.                           | Po posterior ncl.                                           | Lim<br>limitans ncl.                                  | Lim<br>Ncl. limitans<br>LimM<br>Ncl. limitans medialis |
|                                                                               |                                       |                                                         |                                                    |                                                                                   |                                                                  |                                                   |                                               |                                                             | SG<br>suprageniculate ncl.                            | SGe<br>suprageniculate ncl.                            |
| Li.opt<br>Ncl. limitans opticus                                               |                                       | Li.opt<br>Li pars optica                                | Li.opt                                             | Li                                                                                |                                                                  |                                                   |                                               |                                                             |                                                       |                                                        |
| Li.por<br>Ncl. limitans portae                                                |                                       | Li.por<br>Li pars portae                                | Li.por                                             | SG supragenicule ncl.<br>Po posterior ncl.<br>VMpo<br>ventromedial posterior ncl. | Regio basalis                                                    | Po<br>posterior ncl.                              |                                               |                                                             |                                                       | VPb<br>Ncl. ventroposterior basalis portae             |
| s.Hb<br>Ncl. subhabenularis                                                   |                                       | sHb                                                     | Hb<br>Ncl. habenularis                             | -                                                                                 | sPf ?                                                            | sPf                                               |                                               |                                                             |                                                       | SubH<br>subhabenular ncl. ?                            |
| Central gray (Substantia grisea centralis thalamica; Thalamic midline nuclei) | F.Pv<br>Formatio paraventricularis    | Thalamus<br>Höhlengrau                                  | I Midline (and epithalamic region)                 | Medial group (in part)                                                            | Allothalamus<br>(Involucrum)<br>Formatio paramediana             | Medial group:<br>midline nuclei                   | MI<br>midline ncll.                           | Midline<br>nuclear complex                                  | Periventricular nuclei<br>(Midline nuclei)            | Periventricular formation and<br>Midline nuclei        |

|                                                                     |                                                    |                                         |                                                      |                                              |                                                  |                                        |                                                       |                                                                          |                                                       |                                                                    |
|---------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|------------------------------------------------------|----------------------------------------------|--------------------------------------------------|----------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------|
| Pm. (o,pr, c)<br>Ncl. parvomedianum (oralis, principalis, caudalis) | N.pm<br>Ncl. paramedianus                          | Pm<br>Ncl. paramedianus principalis     |                                                      | Pm. a<br>Pm. p                               | PV<br>paraventricular nuclei                     | PV<br>paraventricular nuclei           | Pac<br>paraventricular nuclei                         | PeVA<br>periventricular area                                             |                                                       | PeV<br>periventricular ncl.                                        |
| Pt.<br>Ncl. parataenialis (parvocellularis, interstitialis)         | N.pt<br>Ncl. parataenialis                         | <b>Pt (o, ist)</b>                      | Pt<br>Ncl. parataenialis                             | Pt                                           | Pt                                               |                                        |                                                       |                                                                          | PT<br>paratenial ncl.                                 | PT<br>parataenial ncl.                                             |
|                                                                     |                                                    |                                         | Pm<br>Ncl. paramedianus (a,p)                        |                                              | PV<br>paraventricular nuclei                     | PV<br>paraventricular nuclei           | Pac<br>paraventricular nuclei                         | PeVA<br>periventricular area                                             | PV<br>paraventricular ncl.                            | PV<br>paraventricular ncl.                                         |
| Edy<br>Ncl. endymalis (Ncl. reuniens)                               | N.re<br>Ncl. reuniens<br>N.rh<br>Ncl. rhomboidalis | Edy<br>Ncl. endymalis                   | Edy<br>Ncl. endymalis (Ncl.reuniens, Ncl.submedius?) | MV (Re)<br>medioventral ncl. (reuniens ncl.) |                                                  |                                        | Re                                                    | Re<br>reuniens ncl. (medioventral ncl.)<br>Rh<br>rhomboid (central) ncl. | MV<br>medioventral ncl. (Re Ncl. reuniens)            | Re<br>reuniens ncl.                                                |
| <b>Anterior nuclear group</b><br>(Territorium antierius: A)         | <b>F.A.</b><br><b>Formatio anterior</b>            | <b>Vorderes Kerngebiet</b>              | <b>II Anterodorsal region</b>                        | <b>Anterior group</b>                        | <b>Regio superior</b>                            | <b>Anterior group</b>                  |                                                       | <b>ANC</b><br><b>Anterior nuclear complex of thalamus</b>                | <b>Anterior nuclei of thalamus</b>                    | <b>Anterodorsal region</b>                                         |
| A. pr<br>Ncl. anterior principalis                                  | N.av                                               | Apr                                     | Apr                                                  | AV<br>anteroventral ncl.                     | A<br>Ncl. anterior                               | AV                                     |                                                       | AV                                                                       | AV<br>anteroventral ncl.                              | AV<br>anteroventral ncl.                                           |
| A. m<br>Ncl. anteromedialis                                         | N.am                                               |                                         |                                                      | AM<br>anteromedial ncl.                      |                                                  | (AM)                                   |                                                       | AM                                                                       | AM<br>anteromedial ncl.                               | AM<br>anteromedial ncl.                                            |
| A. d<br>Ncl. anterodorsalis                                         | N.ad                                               | Ad                                      | Ad                                                   | AD<br>anterodorsal ncl.                      |                                                  | AD                                     |                                                       | AD                                                                       | AD<br>anterodorsal ncl.                               | AD<br>anterodorsal ncl.                                            |
| D. s<br>Ncl. dorsalis superficialis                                 | D. sf.<br>Ncl. lateralis dorsalis                  |                                         | D. sf.<br>Ncl. dorsalis superficialis                | LD<br>lateral dorsal ncl.                    | S<br>Ncl. superficialis                          | LD                                     | LD<br>laterodorsal ncl.                               | LD                                                                       | LD<br>laterodorsal ncl. (DSF dorsal superficial ncl.) | DSF<br>dorsal superficial ncl.                                     |
| <b>Medial nuclear region</b><br>(Territorium mediale: M)            | <b>F.M</b><br><b>Formatio medialis</b>             | <b>Mediales Kerngebiet</b>              | <b>III B Medial region</b>                           | <b>Medial group (in part)</b>                | <b>Superregio medioposterior: Regio medialis</b> | <b>Medial group</b>                    |                                                       | <b>MNC</b><br><b>Medial nuclear complex of thalamus</b>                  | <b>Medial nuclei of thalamus</b>                      | <b>Medial region</b>                                               |
| M<br>Ncl. medialis dorsalis or dorsomedialis                        | N.m<br>Ncl. medialis                               | Ncl.<br>dorsomedialis                   | M<br>Ncl. medialis                                   | MD<br>mediodorsal ncl.                       |                                                  | MD                                     | MD<br>mediodorsal ncl.                                | MD                                                                       | MD<br>mediodorsal ncl. (dorsomedial ncl.)             | MD<br>mediodorsal ncl.                                             |
| M. fi.<br>Ncl. medialis fibrosus                                    | N.m.fi<br>pars fibrosa                             | M. fi<br>M. pars fibrosa                | M                                                    | MD. mc<br>magnocellular division             | M                                                | MD. mc<br>magnocellular or medial div. |                                                       | MDm<br>mc / medial division                                              | MDmc<br>magnocellular ncl.                            | MDM<br>medial mediodorsal ncl.                                     |
| M. fa.<br>Ncl. medialis fasciculosus                                | N.m.fa<br>pars fasciculosa                         | M. fa<br>M. pars fasciculosa            |                                                      | MD.l<br>lateral division                     |                                                  | MD. pc<br>parvocell. div.              |                                                       | MDc<br>parvocellular (central) div.                                      | MDpc<br>parvocellular ncl.                            | MDC<br>central mediodorsal ncl.<br>MDL<br>lateral mediodorsal ncl. |
| M. c.<br>Ncl. medialis caudalis (i,e)                               | N.m.c<br>pars caudalis                             | M. c<br>M. pars caudalis                |                                                      | MD.V<br>ventral division.                    |                                                  |                                        |                                                       | MDl<br>multiform lateral div.                                            |                                                       |                                                                    |
| M. pl<br>Ncl. medialis paralamellaris                               | N.m.pl<br>pars paralamellaris                      | M. pl<br>M. pars paralamellaris         |                                                      | part of central lateral ncl. (CL)            |                                                  | MD. pl<br>pl.division, part of CL      | MD/CL<br>mediodorsal/centrolateral division           | MDd<br>densocellular / paralamellar div.                                 | MDpl<br>paralaminar part                              |                                                                    |
|                                                                     |                                                    |                                         |                                                      |                                              |                                                  |                                        |                                                       | MDam<br>anteromedial large-celled island                                 |                                                       |                                                                    |
| <b>Lateral nuclear region</b>                                       | <b>F.L</b><br><b>Formatio lateralis</b>            | <b>L</b><br><b>Laterales Kerngebiet</b> | <b>IV Lateroventral region</b>                       | <b>Ventral nuclei</b>                        | <b>Regio lateralis</b>                           | <b>Lateral group</b>                   | <b>VLN</b><br><b>Ventral group of lateral nucleus</b> | <b>Lateral nuclear complex</b><br>(dorsal group: see LP and Pul);        | <b>Lateral nuclei of thalamus</b>                     | <b>Lateral region</b>                                              |

|                                                                                                 |                                              |                                                            |                                                          |                                                                 |                                                                                                    |                                                |                                                                           | ventral group                                                               |                                                                                                   |                                                                                |
|-------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Oral segment of the lateral nuclear region</b>                                               | <b>N.v.a<br/>Ncl. ventralis anterior</b>     | <b>V<br/>Ncl. ventrooralis pars anterior</b>               | <b>L.po<br/>lateropolaris-fascicularis complex</b>       | <b>VA</b>                                                       | <b>LR<br/>Subregio lateralis rostralis</b>                                                         | <b>VA<br/>ventral anterior ncl.</b>            | <b>VA<br/>ventral anterior ncl.</b>                                       | <b>VA<br/>ventral anterior ncl. of thalamus</b>                             | <b>VA<br/>ventral anterior ncl.</b>                                                               | <b>VA<br/>ventroanterior ncl.</b>                                              |
| L.po (mc)<br>Ncl. lateropolaris (magnocellularis)<br><br>D.o.i in part                          | Rt.po<br><br>VA                              | L.po<br>L.po.mc<br>L.am;<br><br>part of D (Dorsalkerne)    | L.po<br>Ncl. lateropolaris [D.a, V.o.anterior part],     | VAmc<br>magnocellular division (part of CeM)<br><br>parts of VA | VAmc<br>perifascicularis (=VOM = Voi)                                                              | VAmc                                           | VAn<br>nigral afferent zone                                               | VAmc<br>magnocellular division                                              | VAmc<br>VA magnocellular division                                                                 | VAM<br>medial ventroanterior ncl.<br>VAmc<br>magnocellular ventroanterior ncl. |
| V.o.i<br>Ncl. ventro-oralis internus<br><br>D.o.i in part                                       |                                              | V. o. i.<br>Ncl. ventro-oralis pars interna                |                                                          | VA<br><br>VLp<br>anterior medial part                           | VA<br>Ncl. ventralis anterior (LR lateralis rostralis)<br>Situs polaris<br>VApo (= LPo = polar VA) | VAp<br>ventral anterior parvocellular ncl.     |                                                                           | VApr<br>parvocellular division                                              | VAp<br>VA principal division                                                                      |                                                                                |
| L.po.b<br>Ncl. lateropolaris basalis (V.o.a)                                                    | VOM ?                                        | L.po.b<br>pars basalis                                     | Fa<br>Ncl. fasciculosus                                  | VMp<br>principal ventral medial ncl.                            |                                                                                                    | VM<br>ventral medial ncl.                      | VM                                                                        |                                                                             |                                                                                                   | VAMb<br>medial ventroanterior ncl., basal part (entry zone of nigral fibers)   |
| <b>O<br/>Ncll. orales</b>                                                                       | <b>N.v.o<br/>N. ventrooralis (a,m,p)</b>     | <b>V<br/>Ncl. ventrooralis pars interna</b>                | <b>VO<br/>N. ventrooralis</b>                            | <b>VLa<br/>ventral lateral anterior ncl.</b>                    | <b>VO<br/>Subregio lateralis oralis</b>                                                            | <b>VLp<br/>ventral lateral ncl. ant. part</b>  | <b>VAp<br/>pallidal afferent zone</b>                                     | <b>VL<br/>ventral lateral ncl., (rostral division)</b>                      | <b>VL<br/>ventral lateral complex (anterior part)</b>                                             | <b>VAL<br/>lateral ventroanterior ncl.</b>                                     |
| L. po. l<br>Ncl. lateropolaris lateralis<br>D.o.e<br>Ncl. dorso-oralis externus (D.o.i in part) | DA<br><br>VA                                 | La.po<br>pars parvocellularis<br>part of D (Dorsalkerne)   | Lpo<br>Ncl. lateropolaris<br><br>Do<br>Ncl. dorso-oralis | part of VA<br><br>VLa<br><br>+ part of VLp                      | VO<br>Ncl. ventralis oralis                                                                        | VA<br><br>VLp                                  | VAp                                                                       |                                                                             |                                                                                                   | VAL<br>lateral ventralanterior ncl.<br>= VApr<br>principal ventroanterior ncl. |
| V.o.a<br>Ncl. ventro-oralis anterior                                                            | VOA                                          | V .o. a<br>Ncl. ventro-oralis, pars anterior               | V.o.e<br>Ncl. ventro-oralis externus                     |                                                                 |                                                                                                    | VLa<br>(VAp)<br><br>VM und VA<br>VLpd          |                                                                           | VLR<br>rostral division                                                     | VLa<br>anterior ventrolateral ncl.                                                                |                                                                                |
| V.o.p<br>Ncl. ventro-oralis posterior                                                           | DA                                           | V .o<br>Ncl. ventro-oralis                                 | V.o.i<br>Ncl. ventro-oralis internus, anterior part      |                                                                 | VLM / VImM                                                                                         |                                                |                                                                           |                                                                             |                                                                                                   | .VLA<br>anterior ventrolateral ncl. (medial oral division, VLM)                |
| V.o.m.<br>Ncl. ventro-oralis medialis                                                           | VOM                                          | V.o.m. (?)<br>Ncl. ventro-oralis medialis (pars ventralis) |                                                          | VM<br>Ncl. ventralis medialis                                   | VOM                                                                                                | VM                                             |                                                                           | VM<br>VMb                                                                   | VM<br>ventral medial complex: VMb<br>basal ventromedial ncl.<br>VM<br>principal ventromedial ncl. | VALb<br>basal ventralanterior ncl. (entry zone of pallidal fibers)             |
| <b>Intermediate segment of the lateral nuclear mass</b>                                         | <b>N.v.im<br/>Ncl. ventralis intermedius</b> | <b>V.im<br/>Ncl. ventro-intermedius</b>                    | <b>Ventro-intermedius</b>                                | <b>VLp<br/>ventral posterior lateral ncl.</b>                   | <b>LI<br/>Subregio intermedia</b>                                                                  | <b>VLp<br/>ventral lateral ncl. post. part</b> | <b>VL<br/>cerebellar afferent territory</b>                               | <b>VL<br/>ventral lateral ncl.</b>                                          | <b>VL<br/>ventral lateral complex (posterior part)</b>                                            | <b>VL<br/>ventrolateral ncl.</b>                                               |
| D.o.i<br>Ncl. dorso-oralis internus                                                             | DA<br>DP                                     | part of D (Dorsalkerne)                                    | D.o.<br>Ncl. dorso-oralis                                | parts of VA<br>part of VLa                                      | VA<br>Ncl. ventralis anterior                                                                      | VLp<br>part of VLpl                            | VLD<br>VLv<br>(ventral lateral dorsal, ventral lateral ventral divisions) |                                                                             | VLp<br>posterior ventrolateral ncl.                                                               | VAL – VLA-transition                                                           |
| D.im (i, e)<br>Ncl. dorso-intermedius externus, internus, superior, magnocell.                  | DP                                           | D.im<br>Ncl. dorso-intermedius                             |                                                          | VLp<br>(postero-)dorsal parts                                   | Situs dorsalis<br>VIMps = D Ips = VLps<br>Situs postremus                                          |                                                |                                                                           | VLC<br>caudal division (d,v,m dorsal, ventral, medial [area x] subdivision) |                                                                                                   | VLP<br>posterior ventrolateral ncl. (lateral caudal division, VML)             |
| V.o.i.<br>Ncl. ventro-oralis internus                                                           | VA<br>DA                                     |                                                            | V. o. i.<br>Ncl. ventro-oralis internus                  | VLp<br>anteromedial part                                        | VA                                                                                                 |                                                |                                                                           |                                                                             |                                                                                                   |                                                                                |
| V. im. e<br>Ncl. ventromedius externus                                                          | V. im.<br>part of VOP                        | V. im. e.<br>Ncl. ventromedius externus                    | V. im. e<br>Ncl. ventro-intermedius externus             | VLp<br>ventral parts                                            | VImL / VLL /                                                                                       | VLa<br>^^VLpl                                  |                                                                           |                                                                             |                                                                                                   | VLp ?                                                                          |

|                                                                                         |                                                        |                                               |                                                                |                                                                           |                                                                  |                                      |                                                    |                                                                            |                                                         |                                                                                           |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------|
| V. im. i<br>Ncl. ventro-intermedius internus                                            | VOM<br>part of VOP                                     | V. im. i<br>Ncl. ventro-intermedius internus  | V. im. i<br>Ncl. ventro-intermedius internus                   |                                                                           | VImM / VLM                                                       | VLpd<br>VLpv                         |                                                    |                                                                            |                                                         |                                                                                           |
| V.c.pc.e<br>Ncl. ventro-caudalis parvocellularis externus                               |                                                        |                                               | V.c.v<br>V.c.pc.e                                              | VPI<br>„basalis lateralis“<br>VPI<br>ventral posterior inferior ncl.      | BL<br>Ncl. basalis lateralis<br>BM<br>Ncl. basalis medialis      | VPI<br>(VLPv)                        | VPI<br>ventral posterior inferior ncl.             | VPI                                                                        | VPI<br>ventral posterior inferior ncl.                  | VLb<br>basal ventrolateral ncl.<br>(entry zone of cerebellar fibers)                      |
| <b>Caudal segment of the lateral nuclear region</b>                                     | <b>N.v.p<br/>Ncl. ventral posterior (l., m., acc.)</b> | <b>V.c<br/>Ncl. ventro-caudalis</b>           | <b>V.c<br/>Ncl. ventro-caudalis (Ncl. ventralis posterior)</b> |                                                                           | <b>Subregio lat. caud., VC; Regio arcuata, Regio basalis</b>     | <b>VP ventroposterior complex</b>    | <b>VP ventral posterior ncl.</b>                   | <b>VPT ventral posterior nucleus</b>                                       | <b>VP ventroposterior complex; ventrobasal complex</b>  | <b>VP ventroposterior ncl. (complex)</b>                                                  |
| V.c.e<br>Ncl. ventro-caudalis externus                                                  | VPL                                                    | V.c.e<br>Ncl. ventro-caudalis pars externa    | V.c.e<br>Ncl. ventro-caudalis externus                         | VPL<br>ventral posterior lateral ncl.                                     | VPL<br>Ncl. ventralis posterior                                  | VPL                                  | VPI<br>ventral posterior lateral nucleus           | VPL<br>ventral posterior lateral nucleus                                   | VPL<br>ventral posterolateral ncl.                      | VPL<br>lateral ventroposterior ncl. (Ncl. ventralis postero-lateralis)                    |
| V.c.a.e<br>Ncl. ventro-caudalis anterior externus                                       |                                                        |                                               |                                                                | VPLa<br>anterodorsal division of VPL                                      | VPO<br>Ncl. ventralis posterior oralis                           | VPLa                                 |                                                    | VPL<br>rostral division of VPL                                             | VPLa<br>ventral posterolateral ncl., anterior part      | VPS<br>superior ventroposterior ncl<br>VPLa<br>lateral ventroposterior ncl. anterior part |
| V.c.p.e<br>Ncl. ventro-caudalis post. externus                                          |                                                        |                                               |                                                                | VPLp<br>posterior division of VPL                                         | VPL<br>Ncl. ventralis posterior lateralis                        | VPLp                                 |                                                    | VPL<br>caudal division of VPL                                              | VPLp<br>ventral posterolateral ncl., posterior part     | VPLp<br>lateral ventroposterior ncl., posterior part                                      |
| V. c. i.<br>Ncl. ventro-caudalis internus,<br>V.c.a.i<br>Ncl. ventro-caudalis ant. int. | VPM                                                    | V. c. i.<br>Ncl. ventro-caudalis pars interna | V. c. i.<br>Ncl. ventro-caudalis internus                      | VPM<br>ventral posterior medial ncl.,<br>VPMa<br>anterior division of VPM | VPM<br>Ncl. ventralis posterior medialis                         | VPM                                  | VPm<br>ventral posterior medial ncl., dorsal part  | VPM<br>ventral posterior medial ncl.                                       | VPM<br>ventral posteromedial ncl.                       | VPM<br>medial ventroposterior ncl. (ventral posteromedial ncl.)                           |
| V.c.pc.i<br>Ncl. ventro-caudalis parvocellularis internus                               | N.v.p.i<br>Ncl. ventralis posterior inferior           | V.c.pc.i<br>pars parvocellularis interna      | V.c.pc.<br>Ncl. ventro-caudalis parvocellularis                | VMb (+ Sm)<br>basal ventral medial ncl. (+ submedial ncl.) (VPMpc)        | VArc<br>Subregio arcuata (VPMpc)                                 | VPMpc, sPF<br>subparafascicular ncl. | VPm<br>ventral posterior medial ncl., ventral part | VPMpc<br>parvocellular division of VPM<br>VMb<br>basal ventral medial ncl. | VPMpc<br>ventral posteromedial ncl., parvocellular part | VPMpc<br>medial ventroposterior ncl. parvocellular part, sPF<br>Ncl. subparafascicularis  |
| (V.c.pc.e see above)                                                                    |                                                        | V.c.pc.e<br>pars parvocellularis externa      | V.c.v<br>V.c.pc.e                                              | VPI<br>ventral posterior inferior ncl.                                    |                                                                  | VPI<br>(VLPv)                        | VPI<br>ventral posterior inferior ncl.             | VM<br>ventral medial ncl.                                                  | VPI<br>ventral posterior inferior ncl.                  | VLb<br>basal ventrolateral ncl. (entry zone of cerebellar fibers)                         |
| V.c.por<br>Ncl. ventrocaudalis portae                                                   | P                                                      | V.c.por<br>pars portae                        | Pu. o<br>pulvinar oralis                                       | Pla<br>anterior pulvinar ncl.                                             | PuO                                                              | Pu. A.                               |                                                    |                                                                            |                                                         | APUL<br>Ncl. pulvinaris anterioris                                                        |
| Li.por.<br>Ncl. limitans portae                                                         | P<br>Ncl. posterior                                    | V.c.por ?<br>Ncl. ventro-caudalis portae      | V.c.v.<br>Ncl. ventro-caudalis ventralis                       | Po (+SG)<br>suprageniculate and posterior complex                         | BN Ncl. basalis nodalis = Po                                     | Po<br>posterior complex (+ SG)       |                                                    | Po<br>posterior ncl.                                                       | Vmpo<br>ventromedial posterior ncl.                     | VPb<br>basal ventroposterior ncl. (entry zone of sensory fibers)                          |
|                                                                                         | <b>F.p<br/>Formatio posterior)</b>                     | <b>Pulvinar</b>                               | <b>Posterior region (Pu, G l, G m, pr G)</b>                   | <b>Lateral posterior/ Pulvinar group</b>                                  | <b>Superregio posterior: Pulvinar</b>                            | <b>Posterior group</b>               | <b>Pulvinar</b>                                    | <b>DLN<br/>Lateral nuclear complex: dorsal group</b>                       | <b>Posterior nuclei of thalamus and Pulvinar nuclei</b> | <b>Posterior region</b>                                                                   |
| D. c<br>Ncl. caudalis                                                                   | N.d<br>Ncl. dorsalis (a., p., sf)                      | D                                             | D.c<br>Ncl. dorsocaudalis                                      | LP<br>lateral posterior ncl.                                              | LP                                                               | -                                    |                                                    | LP<br>lateral posterior ncl.                                               |                                                         | ADPul<br>Ncl. pulvinaris anterodorsalis                                                   |
| Pu. sf<br>Ncl. pulvinaris superficialis                                                 | N.pu.sf<br>Ncl. pulvinaris superficialis               | Pu. sf                                        |                                                                | Plim<br>medial division of inferior pulvinar ncl., parts of LD/LP/Plm     |                                                                  |                                      |                                                    |                                                                            |                                                         | SFPul<br>Ncl. pulvinaris superficialis                                                    |
| Pu. o.(l,m,v)<br>Ncl. pulvinaris oralis (lateralis, medialis, ventralis)                |                                                        | Pu. o. (l,m)<br>pars lateralis, pars medialis | PuO                                                            | mostly LP and dorsal parts of anterior pulvinar ncl.                      | PuO (Pul.o)<br>Situs oralis; PuOD (DC), Ncl. lateralis posterior | LP<br>Pu A                           |                                                    | LP<br>Pulr<br>anterior ncl. of pulvinar                                    | LP<br>lateral posterior ncl. anterior pulvinar ncl      | APul<br>Ncl. pulvinaris anterior,                                                         |

|                                                                                            |                                             |                                         |                                         |                                         |                                                 |                          |                                       |                                                   |                                                                |                                                            |
|--------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------------|--------------------------|---------------------------------------|---------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------|
| Pu. m. (i,d,z,v)<br>Ncl. pulvinaris medialis<br>(internus, dorsalis, zentralis, ventralis) | N.pu.m<br>Ncl. pulvinaris medialis          | Pu. m.                                  | PuM                                     | Plm<br>medial pulvinar ncl.             | PuM (Pul.m)<br>Situs oralis                     | PuM                      |                                       | Pulm<br>medial ncl. of pulvinar                   | medial pulvinar ncl.                                           | MPul<br>Ncl. pulvinaris medialis                           |
| Pu. l (s)<br>Ncl. pulvinaris lateralis<br>(superior)                                       | Pu.l<br>Ncl. pulvinaris lateralis           | Pu.l.s. + Pu.l.inf.                     | PuL                                     | PlI<br>lateral pulvinar ncl.            | PuL (Pul.l)<br>Situs lateralis                  | PuL                      |                                       | Pull<br>lateral ncl. of pulvinar                  | lateral pulvinar ncl.                                          | LPul<br>Ncl. pulvinaris lateralis                          |
| Pu. l.if<br>Ncl. pulvinaris lateralis inferior                                             |                                             |                                         |                                         | Pli<br>inferior pulvinar ncl.           |                                                 |                          |                                       | Puli<br>inferior ncl. of pulvinar                 | inferior pulvinar ncl.                                         |                                                            |
| Pu.(v) ig<br>Ncl. pulvinaris intergeniculatus                                              | N.pu.ig<br>Ncl. pulvinaris intergeniculatus | Pu. v.                                  | Pu.i                                    |                                         | Ncl.<br>intergeniculatus                        | PuI                      |                                       |                                                   |                                                                | IGPul<br>Ncl. pulvinaris intergenicularis                  |
| Pu. v<br>Ncl. pulvinaris ventralis                                                         | -                                           | -                                       |                                         |                                         | PlI                                             | -                        |                                       |                                                   |                                                                | IPul<br>Ncl. pulvinaris inferior                           |
| Pu. sb<br>Ncl. pulvinaris suprabrachialis                                                  |                                             | -                                       |                                         |                                         | -                                               | -                        |                                       |                                                   |                                                                | -                                                          |
| <b>Metathalamus</b>                                                                        | <b>G.g<br/>Formatio geniculata</b>          | <b>Corpus geniculatum</b>               |                                         |                                         | <b>G Regio geniculata</b>                       | <b>Geniculate nuclei</b> |                                       | <b>PoN<br/>Posterior nuclear complex</b>          | <b>Geniculate nuclei, Metathalamus</b>                         | <b>Metathalamus</b>                                        |
| <b>G. l.<br/>Corpus geniculatum laterale</b>                                               | <b>N.g.l<br/>Ncl. geniculatus lateralis</b> | <b>G.l<br/>Cp. geniculatum laterale</b> | <b>G l<br/>Cp. geniculatum laterale</b> | <b>GLD<br/>Lateral geniculate body</b>  | <b>GL<br/>Ncl. geniculatus lateralis (GLd)</b>  |                          | <b>LG<br/>lateral geniculate ncl.</b> | <b>LG<br/>lateral geniculate ncl.</b>             |                                                                | <b>L.G<br/>lateral geniculate ncl.</b>                     |
|                                                                                            |                                             |                                         |                                         | LG dorsal lateral geniculate ncl.       |                                                 |                          |                                       | DLG dorsal lateral geniculate ncl.                | dorsal lateral geniculate ncl.                                 | LGD dorsal lateral geniculate ncl.                         |
| G. l. mc<br>Corpus geniculatum lat. magnocellularis                                        | N.g.l.mc<br>pars magnocellularis            |                                         |                                         |                                         | LGd                                             | LGN                      |                                       | mc                                                | magnocellular layers                                           | LGmc<br>dorsal lateral geniculate ncl., magnocellular part |
| G. l. pc<br>Corpus geniculatum lat. parvocellularis                                        | N.g.l.mde<br>pars mediocellularis           |                                         |                                         |                                         |                                                 |                          |                                       | pc<br>s layer<br>ke                               | parvocellular layers<br>koniocellular layers                   | LGpc<br>dorsal lateral geniculate ncl., parvocellular part |
| pG<br>Ncl. praegeniculatus (griseus, fibrosus)                                             | N.prg<br>Ncl. praegeniculatus               |                                         | PrG<br>pr G                             | Pg<br>pregeniculate ncl.                | PrG Ncl.<br>praegeniculatus or peripeduncularis | Pg                       |                                       | PG<br>pregeniculate ncl.                          | ventral principal ncl., dorsal ncl., medial magnocellular ncl. | PGe<br>praegeniculate ncl.                                 |
| <b>G. m.<br/>Corpus geniculatum med.</b>                                                   | <b>N.g.m<br/>Ncl. geniculatus medialis</b>  | <b>G.M<br/>Cp. geniculatum mediale</b>  | <b>G m</b>                              | <b>MG<br/>medial geniculate complex</b> | <b>GM<br/>Ncl. geniculatus medialis (GMpc)</b>  | <b>MGN</b>               | <b>MG<br/>medial geniculate ncl.</b>  | <b>MG<br/>medial geniculate ncl.</b>              | <b>medial geniculate ncl.</b>                                  | <b>MG medial geniculate ncl.</b>                           |
| G. m. fa<br>Corpus geniculatum med. fasciculosus                                           | N.g.m.mdc<br>pars mediocellularis           | Gm                                      |                                         | MGv                                     |                                                 |                          |                                       | VMG<br>ventral medial geniculate ncl.             |                                                                | MGV MG, ventral division                                   |
| G. m. fi<br>Corpus geniculatum med. fibrosus                                               |                                             |                                         |                                         | MGd                                     |                                                 |                          |                                       | DMG (ad, pd)<br>dorsal medial geniculate ncl.     |                                                                | MGD MG, dorsal division                                    |
| G. m. mc<br>Corpus geniculatum med. magnocellularis                                        | N.g.m.mc<br>pars magnocellularis            | Gm. mc                                  | G m mc                                  | MG mc                                   |                                                 |                          |                                       | MMG<br>(mc/medial)<br>magnocellular (medial) ncl. |                                                                | MGMC MG, magnocellular division                            |
| G. m. li<br>Corpus geniculatum med. limitans                                               | N.g.m.li<br>pars limitans                   | G. m. li                                |                                         |                                         |                                                 |                          |                                       | LiMG<br>limitans part of medial geniculate ncl.   |                                                                | MGLi MG, limitans division                                 |
| Rt<br>Ncl. reticulatus thalami                                                             | F.Ela<br>Formatio extralamellaris           | Rt<br>Reticulatum thalami               | -                                       | R                                       | PTh Ncl.<br>perithalamicus                      | R                        | Rt<br>reticular ncl.                  |                                                   |                                                                | Rt<br>reticulate ncl.                                      |

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**Supplementary Table 3.** The conditional probabilities  $P(i|j)$  for the overlap of of the clusters defined in AHB with the areas in the eight other atlases. For abbreviations see Supplementary Table 5.

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**Supplementary Table 4:** Estimated 95<sup>th</sup> percentile values of chance concordance  $W_{\max}$  and chance asymmetry  $W_{\text{asym}}$  distributions for random cluster parcellations of thalamus (a). The 95<sup>th</sup> percentile values of the global  $W_{\max}$  chance distribution for random parcellations of the thalamus (b). The 95<sup>th</sup> percentile values of the global asymmetry  $W_{\max}$  chance distribution for random parcellations of the thalamus (c).

a)

|                                                  | Regions (Cluster) |      |       |      |      |      |      |      |      |         |
|--------------------------------------------------|-------------------|------|-------|------|------|------|------|------|------|---------|
|                                                  | IL                | AN   | CM/PF | MD   | VAM  | VAL  | VL   | VP   | P    | LGB/MGB |
| 95 <sup>th</sup> percentile of $W_{\max}$        | 0.41              | 0.45 | 0.47  | 0.39 | 0.44 | 0.52 | 0.51 | 0.48 | 0.35 | 0.25    |
| 95 <sup>th</sup> percentile of $W_{\text{asym}}$ | 0.23              | 0.14 | 0.19  | 0.23 | 0.25 | 0.29 | 0.22 | 0.26 | 0.19 | 0.21    |

b)

|            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>AHB</b> | 0.3487     | 0.3870     | 0.4060     | 0.3780     | 0.3537     | 0.3656     | 0.4618     | 0.3555     |
|            | <b>MRL</b> | 0.3627     | 0.4333     | 0.3993     | 0.3324     | 0.3394     | 0.4831     | 0.3342     |
|            |            | <b>HSL</b> | 0.4745     | 0.4433     | 0.3533     | 0.3481     | 0.5218     | 0.3576     |
|            |            |            | <b>FRM</b> | 0.3641     | 0.4440     | 0.4463     | 0.4104     | 0.4405     |
|            |            |            |            | <b>ILI</b> | 0.4081     | 0.4155     | 0.4295     | 0.4079     |
|            |            |            |            |            | <b>VBB</b> | 0.3320     | 0.4973     | 0.3322     |
|            |            |            |            |            |            | <b>HPD</b> | 0.4963     | 0.3345     |
|            |            |            |            |            |            |            | <b>PER</b> | 0.4905     |
|            |            |            |            |            |            |            |            | <b>DNG</b> |

c)

|            |            |            |            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>AHB</b> | 0.1014     | 0.1765     | 0.2092     | 0.1581     | 0.1141     | 0.1305     | 0.3340     | 0.1194     |
|            | <b>MRL</b> | 0.1320     | 0.2546     | 0.1984     | 0.0701     | 0.0792     | 0.3758     | 0.0670     |
|            |            | <b>HSL</b> | 0.3291     | 0.2718     | 0.1239     | 0.1087     | 0.4454     | 0.1237     |
|            |            |            | <b>FRM</b> | 0.1208     | 0.2711     | 0.2834     | 0.2104     | 0.2651     |
|            |            |            |            | <b>ILI</b> | 0.2114     | 0.2288     | 0.2570     | 0.2121     |
|            |            |            |            |            | <b>VBB</b> | 0.0709     | 0.3864     | 0.0690     |
|            |            |            |            |            |            | <b>HPD</b> | 0.4028     | 0.0728     |
|            |            |            |            |            |            |            | <b>PER</b> | 0.3824     |
|            |            |            |            |            |            |            |            | <b>DNG</b> |



**Supplementary Table 5:** Lists of abbreviations for all atlases used in the study.

| List of Abbreviations for Mai et al. (2016) and Mai and Majtanik (2017) |                                                           | List of Abbreviations for Ding et. at (2016) |                                                                          | List of Abbreviations for Morel (2007) |                                                       |
|-------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------|
| AD                                                                      | anterodorsal nucleus                                      | VA                                           | ventroanterior nucleus                                                   | MD                                     | mediodorsal nucleus of thalamus                       |
| AM                                                                      | anteromedial nucleus                                      | VAL                                          | lateral ventralanterior nucleus                                          | MDc                                    | parvocellular (central) division of MD                |
| APUL                                                                    | nucleus pulvinaris anterioris                             | VAL                                          | lateral ventroanterior nucleus                                           | MDd                                    | densocellular (paralamellar) division of MD           |
| APUL                                                                    | nucleus pulvinaris anterioris                             | VALb                                         | basal ventralanterior nucleus (entry zone of pallidal fibers)            | MDl                                    | multiform (lateral) division of MD                    |
| AV                                                                      | anteroventral nucleus                                     | VAM                                          | medial ventroanterior nucleus                                            | MDm                                    | magnocellular (medial) division of MD                 |
| CeMe                                                                    | central medial nucleus                                    | VAMb                                         | medial ventroanterior nucleus, basal part, (entry zone of nigral fibers) | MG                                     | dorsal medial geniculate nucleus                      |
| CL                                                                      | central lateral nucleus                                   | VAmc                                         | magnocellular ventroanterior nucleus                                     | PC                                     | paracentral nucleus of thalamus                       |
| CM                                                                      | centromedian nucleus,                                     | VApr                                         | principal ventroanterior nucleus                                         | PeVA                                   | periventricular area of thalamus                      |
| CMmc                                                                    | centromedian nucleus, pars magnocellularis                | VL                                           | ventral lateral Ncl                                                      | Pf                                     | parafascicular nucleus of thalamus                    |
| CMpc                                                                    | centromedian nucleus, pars parvocellularis                | VLb                                          | basal ventrlateral nucleus, (entry zone of cerebellar fibers)            | Pf                                     | parafascicular nucleus of thalamus                    |
| Cuc                                                                     | cucullar nucleus                                          |                                              |                                                                          | PG                                     | pregeniculate nucleus                                 |
| DPUL                                                                    | nucleus pulvinaris dorsalis                               | VLb                                          | nucleus ventrolateralis basalis                                          | Po                                     | posterior nucleus of thalamus                         |
| DPUL                                                                    | nucleus pulvinaris dorsalis                               | VLI                                          | lateral ventrolateral nucleus                                            | PoN                                    | posterior nuclear complex of thalamus                 |
| DPUL                                                                    | nucleus pulvinaris dorsalis                               | VLm                                          | medial ventrolateral nucleus                                             | Pt                                     | parataenial nucleus of thalamus                       |
| DSF                                                                     | dorsal superficial nucleus                                | VP                                           | ventroposterior nucleus                                                  | Pul                                    | pulvinar of thalamus                                  |
| Fa                                                                      | nucleus fasciculosus                                      | VPb                                          | nucleus ventroposterior basalis portae                                   | Puli                                   | inferior nucleus of pulvinar                          |
| Hb                                                                      | habenula                                                  | VPb                                          | nucleus ventroposterioris basalis, (entry zone of sensory fibers)        | Pull                                   | lateral nucleus of pulvinar                           |
| IGPUL                                                                   | nucleus pulvinaris intergenicularis                       | VPL                                          |                                                                          | Pulm                                   | medial nucleus of pulvinar                            |
| IL                                                                      | nucleus intralaminaris                                    | VPLa                                         | nucleus ventroposterioris lateralis, pars anterior                       | Pulr                                   | anterior nucleus of pulvinar                          |
| ILA                                                                     | nucleus intralaminaris, anterior group                    |                                              |                                                                          | Re                                     | reuniens nucleus (medioventral nucleus) of thalamus   |
| ILC                                                                     | nucleus intralaminaris, central group                     | VPLp                                         | nucleus ventroposterioris lateralis, pars posterior                      | RN                                     | red nucleus                                           |
| ILP                                                                     | nucleus intralaminaris, posterior group                   |                                              |                                                                          | RPf                                    | retroparafascicular area of thalamus                  |
| IML                                                                     | nucleus intralaminaris medialis                           | VPM                                          | nucleus ventroposterioris medialis                                       | SGN                                    | suprageniculate nucleus of thalamus                   |
| LG                                                                      | nucleus geniculatus lateralis                             | VPMpc                                        | nucleus ventroposterioris medialis parvocellularis                       | SPf                                    | subparafascicular nucleus of thalamus                 |
| LGmc                                                                    | nucleus geniculatus lateralis, pars magnocellularis       |                                              |                                                                          | VA                                     | ventral anterior nucleus of thalamus                  |
| LGpc                                                                    | nucleus geniculatus lateralis, pars parvocellularis       |                                              |                                                                          | VAmc                                   | magnocellular division of VA                          |
| Lim                                                                     | nucleus limitans                                          |                                              |                                                                          | VApr                                   | parvocellular division of VA                          |
| LimM                                                                    | nucleus limitans medialis                                 |                                              |                                                                          | VL                                     | ventral lateral nucleus of thalamus                   |
| LPUL                                                                    | nucleus pulvinaris lateralis                              |                                              |                                                                          | VLC                                    | caudal division of VL                                 |
| MD                                                                      | mediodorsal nucleus,                                      |                                              |                                                                          | VLCd                                   | dorsal subdivision of VLC                             |
| MDmc                                                                    | mediodorsal nucleus, magnocellular part, medial MD        |                                              |                                                                          | VLCv                                   | ventral subdivision of VLC                            |
| MDpc                                                                    | mediodorsal nucleus, parvocellular part, central MD       |                                              |                                                                          | VLCx                                   | medial subdivision of VLC (area x)                    |
| MDpl                                                                    | paralaminar, (paralamellar, densocellular, multiforme) MD |                                              |                                                                          | VLN                                    | ventral group of lateral nucleus                      |
| MPUL                                                                    | nucleus pulvinaris medialis                               |                                              |                                                                          | VLR                                    | rostral division of VL                                |
| PC                                                                      | paracentral nucleus                                       |                                              |                                                                          | VM                                     | ventral medial nucleus of thalamus                    |
| pc                                                                      | posterior commissure                                      |                                              |                                                                          | VMb                                    | basal ventral medial nucleus                          |
| PF                                                                      | parafascicular nucleus                                    |                                              |                                                                          | VMG                                    | ventral medial geniculate nucleus                     |
| PGe                                                                     | nucleus praegeniculatus                                   |                                              |                                                                          | VPI                                    | ventral posterior inferior nucleus                    |
| PT                                                                      | nucleus parataenialis                                     |                                              |                                                                          | VPL                                    | ventral posterior lateral nucleus                     |
| PV                                                                      | paraventricular nucleus                                   |                                              |                                                                          | VPLc                                   | caudal division of ventral posterior lateral nucleus  |
| Re                                                                      | reuniens nucleus                                          |                                              |                                                                          | VPLr                                   | rostral division of ventral posterior lateral nucleus |
| RT                                                                      | nucleus reticulatus                                       |                                              |                                                                          |                                        |                                                       |
| Rt                                                                      | reticular thalalamic nucleus                              |                                              |                                                                          | VPM                                    | ventral posterior medial nucleus                      |
| SFPUL                                                                   | nucleus pulvinaris superficialis                          |                                              |                                                                          | VPMpc                                  | parvocellular division of VPM                         |
| SGe                                                                     | nucleus suprageniculatus                                  |                                              |                                                                          | VPT                                    | ventral posterior nucleus of thalamus                 |
| SPf                                                                     | subparafascicular nucleus                                 |                                              |                                                                          |                                        |                                                       |
|                                                                         |                                                           | AD                                           | anterodorsal nucleus of thalamus                                         |                                        |                                                       |
|                                                                         |                                                           | AILN                                         | anterior group of intralaminar nuclei                                    |                                        |                                                       |
|                                                                         |                                                           | AM                                           | anteromedial nucleus of thalamus                                         |                                        |                                                       |
|                                                                         |                                                           | AV                                           | anteroventral nucleus of thalamus                                        |                                        |                                                       |
|                                                                         |                                                           | CD                                           | central dorsal nucleus of thalamus                                       |                                        |                                                       |
|                                                                         |                                                           | CeM                                          | central medial nucleus of thalamus                                       |                                        |                                                       |
|                                                                         |                                                           | CL                                           | central lateral nucleus of the thalamus                                  |                                        |                                                       |
|                                                                         |                                                           | CLl                                          | lateral division of central lateral nucleus                              |                                        |                                                       |
|                                                                         |                                                           | CLm                                          | medial division of central lateral nucleus                               |                                        |                                                       |
|                                                                         |                                                           | CM                                           | centromedian nucleus of thalamus                                         |                                        |                                                       |
|                                                                         |                                                           | CMI                                          | lateral division of centromedian nucleus of thalamus                     |                                        |                                                       |
|                                                                         |                                                           | CMm                                          | medial division of centromedian nucleus of thalamus                      |                                        |                                                       |
|                                                                         |                                                           | DLG                                          | dorsal lateral geniculate nucleus                                        |                                        |                                                       |
|                                                                         |                                                           | DLN                                          | dorsal group of lateral nucleus                                          |                                        |                                                       |
|                                                                         |                                                           | Fa                                           | fasciculosus nucleus of thalamus                                         |                                        |                                                       |
|                                                                         |                                                           | LD                                           | lateral dorsal nucleus of thalamus                                       |                                        |                                                       |
|                                                                         |                                                           | LG                                           | lateral geniculate nucleus                                               |                                        |                                                       |
|                                                                         |                                                           | Lim                                          | limitans nucleus                                                         |                                        |                                                       |
|                                                                         |                                                           | LiMG                                         | limitans part of medial geniculate nucleus                               |                                        |                                                       |
|                                                                         |                                                           | LP                                           | lateral posterior nucleus of thalamus                                    |                                        |                                                       |

|             |                                                           |         |                                                   |          |                                                 |
|-------------|-----------------------------------------------------------|---------|---------------------------------------------------|----------|-------------------------------------------------|
| AV          | Anteroventral nucleus                                     | Dc      | nucleus dorsocaudalis                             | Ce.      | Nucleus centralis                               |
| CeM         | Central medial nucleus                                    | Do      | nucleus dorsooralis                               | Cm.a.    | Anterior commissure                             |
| CL(p)       | Central lateral nucleus (posterior part)                  | D sf    | nucleus dorsalis superficialis                    | Co       | Nucleus commissuralis                           |
| CM          | Centre médian nucleus (or centromedian)                   | Fa      | nucleus fasciculosus                              | Cu       | Nucleus cucullaris                              |
| Hb          | (l,m) Habenular nucleus (lateral and medial subdivisions) | Gl      | Corpus geniculatum laterale                       | D.c      | Nucleus ventrocaudalis                          |
| LD          | Lateral dorsal nucleus                                    | Gl mc   | Corpus geniculatum laterale, pars magnocellularis | D.im.e   | Nucleus dorsointermedius externus               |
| LGN layers) | (mc) Lateral geniculate nucleus (magnocellular layers)    | G 1 pc  | Corpus geniculatum laterale, pars parvocellularis | D.im.i   | Nucleus dorsointermedius internus               |
| Li          | Limitans nucleus                                          | Gm      | Corpus geniculatum mediale                        | D.o.e    | Nucleus dorsooralis externus                    |
| LP          | Lateral posterior nucleus                                 | Gm mc   | Corpus geniculatum mediale, pars magnocellularis  | D.o.i    | Nucleus dorsooralis internus                    |
| MD pc       | Mediodorsal nucleus (parvocellular division)              |         |                                                   | D.sf.    | Nucleus dorsalis superficialis                  |
| MDmc        | Mediodorsal nucleus (magnocellular division)              | Gm pc   | Corpus geniculatum mediale, pars parvocellularis  | Fa       | Nucleus fasciculosus thalami                    |
| MGN         | Medial geniculate nucleus                                 |         |                                                   | Fx       | Fornix                                          |
| PC          | Posterior commissure                                      | H       | Habenula                                          | G.m      | Corpus geniculatum medialis                     |
| Pf          | Parafascicular nucleus                                    | Hl      | nucleus habenularis lateralis                     | G.l      | Corpus geniculatum lateralis                    |
| Po          | Posterior nucleus                                         | Hm      | nucleus habenularis medialis                      | H.i.     | Ganglion habenulae internus                     |
| PuA         | Anterior pulvinar                                         | iLa     | nucleus in tralamellaris                          | H.m      | Ganglion habenulae medialis                     |
| PuI         | Inferior pulvinar                                         | Li      | nucleus limitans                                  | iLm      | Nucleus intralaminaris medialis                 |
| PuL         | Lateral pulvinar                                          | Lpo     | nucleus lateropolaris                             | iLa.o    | Nucleus intralaminaris oralis                   |
| PuM         | Medial pulvinar                                           | M       | nucleus medialis                                  | La. M.   | Lamella medialis thalami                        |
| Pv          | Paraventricular nuclei                                    | Pf      | nucleus parafascicularis                          | la.p.l   | Lamina palidii lateralis                        |
| SG          | Suprageniculate nucleus                                   | Pm      | nucleus paramedianus                              | la.p.m   | Lamina palidii medialis                         |
| sPf         | Subparafascicular nucleus                                 | Pm a    | nucleus paramedianus anterior                     | Li       | Nucleus limitans thalami                        |
| VAmc        | Ventral anterior nucleus (magnocellular division)         | Pm p    | nucleus paramedianus posterior                    | L.po     | Nucleus lateropolaris thalami                   |
| VApc        | Ventral anterior nucleus parvocellular division)          | pr G    | nucleus praegeniculatus                           | M        | Nucleus medialis                                |
| VLa         | Ventral lateral anterior nucleus                          | Pt      | nucleus parataenialis                             | Pf.      | Nucleus parafascicularis                        |
| VLpd        | Ventral lateral posterior nucleus (dorsal division)       | Pu      | nucleus pulvinaris                                | Ppd.     | Nucleus peripendicularis                        |
| VLpv        | Ventral lateral posterior nucleus (ventral division)      | Pu i N. | pulvinaris in tergenicula tus                     | prG      | Praegeniculatum                                 |
| VM          | Ventral medial nucleus                                    | Pu I N. | pulvinaris lateralis                              | Pu.ig    | Nucleus pulvinaris intergeniculatus             |
| VPI         | Ventral posterior inferior nucleus                        | Pum N.  | pulvinaris medialis                               | Pu.l     | Nucleus pulvinaris lateralis                    |
| VPL(a)      | Ventral posterior lateral nucleus (anterior division)     | Pu o.   | nucleus pulvinaris oralis                         | Pu.m     | Nucleus pulvinaris medialis                     |
| VPL(p)      | Ventral posterior lateral nucleus (posterior division)    | Pv N.   | paraventricularis hypothalami                     | Pu.o.l   | Nucleus pulvinaris orolateralis                 |
| VPM         | Ventral posterior medial nucleus                          | R N.    | reticularis                                       | Pu.o.m   | Nucleus pulvinaris oromedialis                  |
| VPMpc       | Ventral posterior medial nucleus, parvocellular division  | S m th  | Stria medullaris thalami                          | Pu.o.v   | Nucleus pulvinaris oroventralis                 |
|             |                                                           | Vc      | nucleus ventrocaudalis                            | Pu.sf    | Nucleus pulvinaris superficialis                |
|             |                                                           | V c e   | nucleus ventrocaudalis externus                   | Pt.      | Nucleus parataenialis                           |
|             |                                                           | V ci    | nucleus ventrocaudalis internus                   | Pv       | Nucleus paraventricularis                       |
|             |                                                           | V cpc   | nucleus ventrocaudalis parvocellularis            | Ru       | Nucleus ruber                                   |
|             |                                                           | Vcv     | nucleus ventrocaudalis ventralis                  | Rt.po.   | Nucleus reticularis polaris                     |
|             |                                                           | Vime    | nucleus ventrointermedius externus                | Rt.pu.   | Nucleus reticularis pulvinaris                  |
|             |                                                           | Vimi    | nucleus ventrointermedius internus                | st. m    | Stria medullaris thalami                        |
|             |                                                           | Vo e    | nucleus ventrooralis externus                     | V.c.a.i  | Nucleus ventrocaudalis anterior internus        |
|             |                                                           | Voi     | nucleus ventrooralis internus                     | V.c.e    | Nucleus ventrocaudalis externus                 |
|             |                                                           | Vom     | nucleus ventrooralis medialis                     | V.c.i    | Nucleus ventrocaudalis internus                 |
|             |                                                           |         |                                                   | V.c.p.e  | Nucleus ventrocaudalis posterior externus       |
|             |                                                           |         |                                                   | V.c.pc   | Nucleus ventrocaudalis parvocellularis          |
|             |                                                           |         |                                                   | V.c.pc.e | Nucleus ventrocaudalis parvocellularis externus |
|             |                                                           |         |                                                   | V.c.pc.i | Nucleus ventrocaudalis parvocellularis internus |
|             |                                                           |         |                                                   | V.c.por  | Nucleus ventrocaudalis portae                   |
|             |                                                           |         |                                                   | V.im.e   | Nucleus ventrointermedius externus              |
|             |                                                           |         |                                                   | V.im.i   | Nucleus ventrointermedius internus              |
|             |                                                           |         |                                                   | V.o.a    | Nucleus ventrooralis anterior                   |
|             |                                                           |         |                                                   | V.o.i    | Nucleus ventrooralis internus                   |
|             |                                                           |         |                                                   | V.o.m    | Nucleus ventrooralis medialis                   |
|             |                                                           |         |                                                   | V.o.p    | Nucleus ventrooralis posterior                  |
|             |                                                           |         |                                                   | Z.c.e    | Nucleus zentrocaudalis externis                 |
|             |                                                           |         |                                                   | Z.c.i    | Nucleus zentrocaudalis internis                 |
|             |                                                           |         |                                                   | Z.i.     | Zona incerta                                    |

**List of Abbreviations for Van Buren and Borke (1971)**

|        |                                   |
|--------|-----------------------------------|
| Ad     | nucleus anterodorsalis            |
| Am     | nucleus anteromedialis            |
| Apr    | nucleus anteroprincipalis         |
| Cclg   | Corporis callosi genu             |
| Cclr   | Corporis callosi rostrum          |
| Ccls   | Corporis callosi splenium         |
| C cl t | Corporis callosi truncus          |
| Ce N.  | centralis                         |
| Cemc   | nucleus centralis magnocellularis |
| Ce pc  | nucleus centralis parvocellularis |
| Cmp    | Commissura posterior              |
| Co     | nucleus commissuralis             |

**List of Abbreviations for Hassler (1977); Hassler et al. (1979)**

|        |                               |
|--------|-------------------------------|
| A.tr.W | Area triangularis Wernicke    |
| Apr    | Nucleus anterior principalis  |
| A. pr  | Nucleus anterior principalis  |
| A. m   | Nucleus anteromedialis        |
| A. if  | Nucleus anteroinferior        |
| A. r   | Nucleus anteroreuniens        |
| A. d   | Nucleus anterodorsalis        |
| B      | Anterior perforated substance |

|        |                                    |
|--------|------------------------------------|
| Z.im   | Nucleus zentrointermedius          |
| Z.im.e | Nucleus zentrointermedius externus |
| Z.im.i | Nucleus zentrointermedius internus |
| Z.o.   | Nucleus zentrooralis               |

**List of Abbreviations for Illinsky et al. (2018 )**

|         |                                          |
|---------|------------------------------------------|
| A       | Anterior Nucleus                         |
| CL      | Centrolateral Nucleus                    |
| CM/Pf   | Centromedian/Parafascicular              |
| GPI     | Globus Pallidus lateral                  |
| GPm     | Globus Pallidus medial                   |
| Hbl     | Habenula lateral                         |
| Hbm     | Habenula medial                          |
| ic      | Internal Capsule                         |
| LD      | Laterodorsal Nucleus                     |
| LG      | Lateral Geniculate Nucleus               |
| Li      | Limitans Nucleus                         |
| MB      | Mamillary Body                           |
| MD      | Mediodorsal Nucleus                      |
| MG      | Medial geniculate                        |
| MGC     | MG complex                               |
| ot      | Optic tract                              |
| PC      | Paracentral Nucleus                      |
| Po      | Pontine Nucleus                          |
| Pul     | Pulvinar                                 |
| R       | Red Nucleus                              |
| Rt      | Reticular Nucleus                        |
| VAn     | Ventral Anterior nigral Nucleus          |
| VAp     | Ventral Anterior pallidal Nucleus        |
| VLD/VLv | Ventral Lateral dorsal/medial Nucleus    |
| VPI     | Ventral posterior inferior Nucleus       |
| VPI/VPm | Ventral Posterior lateral/medial Nucleus |

**List of Abbreviations for Hopf 1971**

|            |                                                                |
|------------|----------------------------------------------------------------|
| A          | Ncl. anterior principalis                                      |
| Ad         | Ncl. anterodorsalis                                            |
| Ce.mc      | Ncl. centralis thalami; centre médian (magnocellular division) |
| Ce.pc      | Ncl. centralis thalami; centre médian (parvocellular division) |
| Co         | Ncl. commissuralis                                             |
| Cu         | Ncl. cucullaris                                                |
| D          | Ncl. dorsalis                                                  |
| D. sf.     | Ncl. dorsalis superficalis                                     |
| D.im       | Ncl. dorsomintermedius                                         |
| Edy        | Ncl. endymalis                                                 |
| Fa         | Ncl. fasciculosus                                              |
| G. m. li   | Corpus geniculatum mediale, pars limitans                      |
| G.l        | Cp. geniculatum laterale                                       |
| Gm         | Cp. geniculatum mediale                                        |
| Gm. mc     | Corpus geniculatum mediale, pars magnocellularis               |
| Hüllgebiet | Involucrum                                                     |

|             |                                              |
|-------------|----------------------------------------------|
| iLa.m (c)   | Ncl. intralamellaris medialis (caudal part)  |
| Li          | Ncl. limitans                                |
| Li.opt      | Ncl. limitans opticus                        |
| Li.por      | Ncl. limitans portae                         |
| M. c        | Ncl. medialis caudalis                       |
| M. fa       | Ncl. medialis fasciculosus                   |
| M. fi       | Ncl. medialis fibrosus                       |
| M. pl       | Ncl. medialis paralamellaris                 |
| Pf          | Ncl. parafascicularis                        |
| Pm          | Ncl. parvomedianum                           |
| Pm (m)      | med. part of parvomedianum                   |
| Pt (o, ist) | Ncl. parataenialis (oral, interstitial part) |
| Pu. m.      | Ncl. pulvinaris medialis                     |
| Pu. o. l    | Ncl. pulvinaris oralis (pars lateralis)      |
| Pu. o. m.   | Ncl. pulvinaris oralis (pars medialis)       |
| Pu. sf      | Ncl. pulvinaris superficialis                |
| Pu. v.      | Ncl. pulvinaris ventralis                    |
| Pu.l.inf.   | Ncl. pulvinaris lateralis inferior           |
| Pu.l.s.     | Ncl. pulvinaris lateralis (superior)         |
| Rt          | Reticulum thalami                            |
| sHb         | Ncl. subhabenularis                          |
| V. c. i.    | Ncl. ventro-caudalis internus                |
| V. im. E    | Ncl. ventromedius externus                   |
| V. im.i..   | Ncl. ventro-intermedius internus             |
| V.c.e       | Ncl. ventro-caudalis externus                |
| V.o.pc      | Ncl. ventro-oralis parvocellularis           |
| Z. im. e.   | Ncl. zentromedius externus                   |
| Z.im        | Ncl. zentro-intermedius                      |
| Z.im.i      | Ncl. zentrolateralis intermedius internus    |
| Z.o         | Ncl. zentro-oralis                           |

**List of Abbreviations for Feremutsch (1963); Feremutsch & Simma (1971)**

|             |                                                                        |
|-------------|------------------------------------------------------------------------|
| A           | Ncl. anterior                                                          |
| Ce (CEM)    | Ncl. centrum medianum (Ncl. centralis, PNA)                            |
| CGL (GL)    | Corpus geniculatum laterale                                            |
| CGM (GM)    | Corpus geniculatum mediale                                             |
| Ci          | Ncl. circularis                                                        |
| D.sf        | Ncl. dorsalis superficialis                                            |
| DA (LA)     | Ncl. dorsalis anterior (Ncl. lateralis anterior)                       |
| DP (LDP)    | Ncl. dorsalis posterior (Ncl. lateralis, pars dorsalis posterior)      |
| Fa          | Ncl. fasciculosus                                                      |
| Ila.cl      | Nc. intralaminaris centrolateralis                                     |
| Ila.cm      | Nc. intralaminaris centromedialis                                      |
| L           | Ncl. lateralis                                                         |
| LD          | Ncl. lateralis, pars dorsalis                                          |
| Li          | Ncl. limitans                                                          |
| LV (VOA)    | Ncl. lateralis, pars ventralis (Ncl. ventralis oralis, pars anterior)  |
| LV (VOP)    | Ncl. lateralis, pars ventralis (Ncl. ventralis oralis, pars posterior) |
| LVP         | Ncl. lateralis, pars ventralis posterior                               |
| LVP.1 (VPL) | Ncl. lateralis, pars ventralis posterior lateralis                     |
| LVP.m (VPM) | Ncl. lateralis, pars ventralis posterior medialis                      |

|          |                                                            |
|----------|------------------------------------------------------------|
| M.fa     | Ncl. medio-dorsalis pars fasciculosa                       |
| M.fi     | Ncl. medio-dorsalis pars fibrosa                           |
| M.pl     | Ncl. medio-dorsalis pars paralamellaris                    |
| MD       | Ncl. medio-dorsalis                                        |
| P        | Ncl. posterior, part of CI                                 |
| Pf       | Ncl. parafascicularis                                      |
| Pm       | Ncl. parvomedianum (Territorium periventriculare)          |
| Pt       | Ncl. parataenialis                                         |
| Pu       | Ncl. pulvinaris                                            |
| Pu.IG    | Ncl. pulvinaris inferior (Intergeniculatum)                |
| Pu.L     | Ncl. pulvinaris lateralis                                  |
| Pu.M     | Ncl. pulvinaris medialis                                   |
| Pu.Sf    | Ncl. pulvinaris superficialis                              |
| py       | Territorium periventriculare                               |
| RE       | Ncl. reuniens massae intermediae                           |
| Rt (LR)  | Ncl. reticularis (Ncl. lateralis, pars reticularis)        |
| Rt.Po    | Ncl. reticularis polaris                                   |
| V.Im     | Ncl. lateralis, pars ventralis posterior                   |
| VA (LA)  | Ncl. ventralis anterior (Ncl. lateralis, pars principalis) |
| VOM (LA) | Ncl. ventralis oralis, pars medialis                       |
| VPI      | Ncl. lateralis, pars ventralis posterior internus          |

**List of Abbreviations for Hirai & Jones (1989); Jones (1990, 1998)**

|         |                                                   |
|---------|---------------------------------------------------|
| AD      | anterodorsal ncl.                                 |
| AM      | anteromedial ncl.                                 |
| AV      | anteroventral ncl.                                |
| CeM.    | central medial ncl.                               |
| CL      | central lateral ncl.                              |
| CL post | central lateral ncl., posterior part              |
| CM      | centre médian, part CM/Pf                         |
| CM      | centre médian ncl.                                |
| GLd     | dorsal lateral geniculate ncl.                    |
| GLD     | dorsal lateral geniculate ncl.                    |
| L/Sg    | limitans/ suprageniculate ncl.                    |
| LD      | lateral dorsal ncl.                               |
| Li (L)  | limitans ncl.                                     |
| LP      | lateral posterior ncl.                            |
| MD      | mediodorsal ncl.                                  |
| MD. l.  | mediodorsal ncl., lateral division                |
| MD. mc  | mediodorsal ncl.magnocellular division            |
| MD. v.  | mediodorsal ncl., ventral division                |
| MG      | medial geniculate complex                         |
| MG mc   | medial geniculate complex, magnocellular division |
| MGd     | medial geniculate complex, dorsal division        |
| MGv     | medial geniculate complex, ventral division       |
| MV (Re) | medioventral ncl. (reuniens ncl.)                 |
| Pc      | paracentral ncl.                                  |
| Pc      | paracentral ncl.                                  |
| Pf      | parafascicular ncl.                               |
| Pg      | pregeniculate ncl.                                |
| Pla     | anterior pulvinar ncl.                            |

|       |                                                        |       |                                                      |      |                                               |
|-------|--------------------------------------------------------|-------|------------------------------------------------------|------|-----------------------------------------------|
| Pli   | inferior pulvinar ncl.                                 | VPL   | ventral posterior lateral ncl.                       | Pf   | Ncl. parafascicularis                         |
| PlI   | lateral pulvinar ncl.                                  | VPLa  | anterior division of ventral posterior lateral ncl.  | Pg   | Ncl. praegeniculatus                          |
| Plm   | medial pulvinar ncl.                                   | VPLp  | posterior division of ventral posterior lateral ncl. | Pu   | Ncl. pulvinaris                               |
| Pm. a | anterior paramedian ncl.                               |       |                                                      | PuA  | Ncl. pulvinaris anterior                      |
| Pm. p | posterior paramedian ncl.                              | VPM   | ventral posterior medial ncl.                        | PuI  | Ncl. pulvinaris inferior                      |
| Po    | posterior ncl. (Basalis „Halo“)                        | VPMa  | anterior division of VPM                             | PuIg | Ncl. pulvinaris intergeniculatus              |
| Pt    | parataenial ncl.                                       | VPMpc | parvocellular division of of ventral posterior       | PuL  | Ncl. pulvinaris lateralis                     |
| R     | reticular ncl.                                         |       | medial nucleus (VMb, Varc)                           | PuM  | Ncl. pulvinaris medialis                      |
| Rh    | rhomboid ncl.                                          | VPO   | oral division of ventral posterior lateral ncl.      | PuO  | Ncl. pulvinaris oralis                        |
| Sg    | suprageniculate ncl.                                   | (VPS) |                                                      | PuOD | Ncl. pulvinaris oralis dorsalis               |
| SG    | posterior nucleus                                      |       |                                                      | R    | Ncl. reticularis                              |
| Sm    | submedial ncl.                                         |       |                                                      | sPf  | Ncl. subparafascicularis                      |
| SM    | Ncl. submedius                                         |       |                                                      | VA   | Ncl. ventralis anterior                       |
| Sm    | submedial ncl.                                         |       |                                                      | VAmc | Ncl. ventralis anterior, pars magnocellularis |
| VA    | ventral anterior ncl.                                  |       |                                                      | VArc | Ncl. ventralis arcuata                        |
| VAmc  | magnocellular ventral anterior ncl.                    | A     | Ncl. anterior                                        | VIm  | Ncl. ventralis intermedius                    |
| VLa   | ventral lateral anterior ncl.                          | BN    | Ncl. basalis                                         | VImL | Ncl. ventralis intermedius, pars lateralis    |
| VLam  | ventral lateral anterior ncl., medial part             | CeM   | nucleus centralis medialis                           | VImM | Ncl. ventralis intermedius, pars medialis     |
| VLp   | ventral lateral posterior ncl.                         | CL    | Ncl. centralis lateralis                             | VL   | Ncl. ventralis lateralis                      |
| VLp   | ventral lateral posterior ncl.                         | CM    | centre médian                                        | VLL  | Ncl. ventralis lateralis, pars lateralis      |
| VLpd  | ventral lateral posterior ncl., dorsal part            | Co    | Ncl. commissuralis                                   | VLp  | Ncl. ventralis lateralis, pars posterior      |
| VM    | principal ventral medial ncl.                          | LG    | Ncl. geniculatus lateralis                           | VO   | Ncl. ventro-oralis                            |
| VMb   | basal ventral medial ncl.                              | LGd   | Ncl. geniculatus lateralis, pars dorsalis            | VP   | Subregio lateralis caudalis                   |
| VMpo  | (Basalis nodalis)                                      | Li    | Ncl. limitans                                        | VPL  | Ncl. ventroposterior lateralis                |
| VMP   | ventromedial posterior ncl.                            | LP    | Ncl. lateralis posterior                             | VPM  | Ncl. ventroposterior medialis                 |
| VPI   | ventral posterior inferior nucleus (Basalis lateralis) | M     | Regio medialis                                       | VPO  | Ncl. ventroposterior oralis                   |
|       |                                                        | MG    | Ncl. geniculatus medialis                            |      |                                               |

**List of Abbreviations for Percheron (2004)**