

**On-line Table 1: Population distribution among preterm (28–37 weeks) and term-born infants (>37 weeks) in the study cohort<sup>a</sup>**

	Preterm Birth ( <i>n</i> = 36)	Term-Born Infants ( <i>n</i> = 66)	Total Cohort ( <i>n</i> = 102)
Mean age at birth (SD) (gestational wk)	31.66 (2.37)	40.44 (1.21)	37.28 (4.57)
Mean age at scan (SD) (yr)	8.85 (1.53)	8.80 (1.79)	8.81 (1.70)
Sex (male/female)	23:13	27:39	50:52

<sup>a</sup> The cohort consisted of 102 infants who were previously part of an MRI pilot study and prospective cohort studies among children born in Rotterdam.<sup>26</sup> Distribution of the cohort is summarized in Tables 1 and 2.

**On-line Table 2: Perinatal characteristics of preterm-born infants**

Characteristics		Data Missing <sup>a</sup>
Perinatal conditions (median) (range)		
NICU stay duration (days)	5 (0–62)	0
Apgar score 1 min postpartum	7 (1–9)	9
Apgar score 5 min postpartum	9 (3–10)	9
Days of mechanical ventilation	3 (0–21)	7
Perinatal complications (No. of cases)		
Echo cerebrum abnormalities	Mild ventriculomegaly (1)	4
Infections (duration in days)	7 (7)	5
Postnatal hypoglycemia	5 (Frequency range, 1–2)	7
Infant respiratory distress syndrome	19 (IRDS grade: median II, range I–IV)	6
Oligohydramnion	1	6

**Note:**—NICU indicates neonatal intensive care unit; IRDS, infant respiratory distress syndrome.

<sup>a</sup> Missing data indicate the number of cases for which the information was not found or explicitly stated in the medical record data base. Missing data refer to clinical data of the infants who were born in nonacademic hospitals and were not secondarily referred to academic NICU facilities. Major perinatal complications were therefore excluded. IRDS is graded based on arterial oxygenation decrease. Herein, grade I is considered mild IRDS and grade IV most severe ARDS.

**On-line Table 3: Tracking protocols for cerebellar tracts<sup>a</sup>**

Tract	Seed ROI	Target ROI
SCP	Junction SCP and dorsal brain stem both sides (axial plane)	Cerebellar hemispheres both sides (coronal plane)
MCP	Left hemisphere (coronal plane)	Right hemisphere (coronal)
ICP	Dorsal brain stem inferior to pons (axial plane)	Hemisphere (both sides, coronal plane)

**Note:**—SCP indicates superior cerebellar peduncle; MCP, middle cerebellar peduncle; ICP, inferior cerebellar peduncle.

<sup>a</sup> Tracking of each tract was performed from seed to target region and inversely. The processing procedure was atlas-based segmentation.

**On-line Table 4: Software packages used for cerebellar and cerebral segmentations—white matter tractography<sup>a</sup>**

Structure	Software Package	MRI Atlas Used
Cerebrum	FreeSurfer <sup>b</sup>	Destrieux et al <sup>56</sup>
Cerebellum	SUIT toolbox <sup>34,35</sup>	Schmahmann et al, 1999 <sup>37</sup>

<sup>a</sup> Software package: FSL 5.0 in conjunction with AutoPtx tractography plugin.<sup>32,33,57,58</sup> Settings: probabilistic tractography using the BEDPOSTX algorithm (<https://stackoverflow.com/questions/40239593/fsl-preprocessing-bedpostx-error-error-in-logfile-what-does-this-mean>). Number of seed points per voxel: for cerebellar tracts, 4400; for cerebral tracts, tract-dependent.

<sup>b</sup> FreeSurfer: <http://surfer.nmr.mgh.harvard.edu>.

**On-line Table 5: Regression coefficients of significant cerebellar gray matter segmentation statistics versus age at scanning, corrected for differences in sex and age at scanning<sup>a</sup>**

Dependent Variable <sup>a</sup>	Standardized Regression Coefficient ( $\beta$ )	T Statistics	Significance (2-Tailed)
Left crus I (volume)	.283	2.578	.01
Left IX (volume)	.207	1.999	.05
Left V (volume)	.223	2.028	.05
Right crus I (volume)	.248	2.308	.02
Left V (surface area)	.231	2.122	.04
Left VI (surface area)	.224	2.095	.04
Left crus I (surface area)	.318	2.884	.005
Right crus I (surface area)	.227	2.074	.04
Left IX (surface)	.227	2.186	.03
Left X (surface)	.223	2.016	.05

<sup>a</sup> After false discovery rate correction for the number of atlas labels, none of these values remained significant.

**On-line Table 6: Regression coefficients of tractography results (FA and MD values) versus age at scanning, corrected for multiple comparisons and differences in sex and age at scanning**

Dependent Variable <sup>a</sup>	Standardized Regression Coefficient ( $\beta$ )	T Statistics	Significance (2-Tailed)
Anterior thalamic radiation left (FA)	.286	1.161	.76
Anterior thalamic radiation left (MD)	.500	1.820	.41
Anterior thalamic radiation right (FA)	-.091	-.461	.91
Anterior thalamic radiation right (MD)	-.112	-.558	.86
Corticospinal tract left (FA)	-.580	-1.878	.41
Corticospinal tract left (MD)	.025	.087	.99
Corticospinal tract right (FA)	.485	1.650	.45
Corticospinal tract right (MD)	-.058	-.257	.97
Forceps major left (FA)	.268	1.586	.45
Forceps major left (MD)	-.002	-.016	.99
Forceps minor right (FA)	.221	.973	.77
Forceps minor right (MD)	-.500	-2.844	.15
Inferior cerebellar peduncle (FA)	-.124	-.834	.77
Inferior cerebellar peduncle (MD)	.254	1.601	.45
Inferior longitudinal fasciculus left (FA)	.220	1.114	.76
Inferior longitudinal fasciculus left (MD)	-.435	-2.329	.20
Inferior longitudinal fasciculus right (FA)	.071	.390	.91
Inferior longitudinal fasciculus right (MD)	.624	2.705	.15
Middle cerebellar peduncle (FA)	-.006	-.036	.99
Middle cerebellar peduncle (MD)	-.129	-.923	.77
Posterior thalamic radiation left (FA)	-.178	-.897	.77
Posterior thalamic radiation left (MD)	.513	2.514	.17
Posterior thalamic radiation right (FA)	-.095	-.581	.86
Posterior thalamic radiation right (MD)	-.093	-.572	.86
Superior cerebellar peduncle (FA)	.219	1.142	.76
Superior cerebellar peduncle (MD)	.003	.016	.99
Superior longitudinal fasciculus left (FA)	-.189	-1.009	.77
Superior longitudinal fasciculus left (MD)	-.023	-.106	.99
Superior longitudinal fasciculus right (FA)	-.104	-.612	.86
Superior longitudinal fasciculus right (MD)	-.076	-.355	.91
Superior thalamic radiation left (FA)	-.133	-.576	.86
Superior thalamic radiation left (MD)	-.233	-.865	.77
Superior thalamic radiation right (FA)	.033	.160	.99
Superior thalamic radiation right (MD)	-0.38	-.376	.91

<sup>a</sup> White matter tracts were depicted using automated tractography in FSL (<https://fsl.fmrib.ox.ac.uk/fsl/fslwiki/AutoPtX>).