Supplementary Material

Supplementary Tables

Table S1. List of the 20 homotopic regions from the Brainnetome atlas (Fan et al., 2016) in the parietal cortices that were used as atlas-based FC seed

Gyrus	Label left hemisphere	Label right hemisphere	Anatomical and modified Cyto-architectonic descriptions	Left hemisphere MNI(X,Y,Z)	Right hemisphere MNI(X,Y,Z)
Superior Parietal Lobule	125	126	*A7r, rostral area 7*	-16, -60, 63	19, -57, 65
	127	128	*A7c, caudal area 7*	-15, -71, 52	19, -69, 54
	129	130	*A5l, lateral area 5*	-33, -47, 50	35, -42, 54
	131	132	*A7pc, postcentral area 7*	-22, -47, 65	23, -43, 67
	133	134	*A7ip, intraparietal area 7(hIP3)*	-27, -59, 54	31, -54, 53
Inferior Parietal Lobule	135	136	*A39c, caudal area 39(PGp)*	-34, -80, 29	45, -71, 20
	137	138	*A39rd, rostrodorsal area 39(Hip3)*	-38, -61, 46	39, -65, 44
	139	140	*A40rd, rostrodorsal area 40(PFt)*	-51, -33, 42	47, -35, 45
	143	144	*A39rv, rostroventral area 39(PGa)*	-47, -65, 26	53, -54, 25
Precuneus	147	148	*A7m, medial area 7(PEp)*	-5, -63, 51	6, -65, 51

Table S2. Using the atlas-based FC seeds approach, group differences in FC of left and right seeds in the parietal cortex between children with and without the ventral forebrain bundles retrieved (crossing the midline in the anterior commissure)

Labels of atlas regions in left and right hemispheres	Independent-sample t-test for the comparison in FC between left and right seeds (mentioned in left column) between children with and without the ventral forebrain bundles retrieved
lh.125 <> rh.126	t(14)=1.114, p=0.284
lh.127 <> rh.128	t(14)=0.238, p=0.815
lh.129 <> rh.130	t(14)=0.811, p=0.431
lh.131 <> rh.132	t(14)=0.949, p=0.359
lh.133 <> rh.134	t(14)=1.382, p=0.189
lh.135 <> rh.136	t(14)=1.163, p=0.264
lh.137 <> rh.138	t(14)=0.994, p=0.337
lh.139 <> rh.140	t(14)=0.325, p=0.750
lh.143 <> rh.144	t(14)= 1.372, p=0.192
lh.147 <> rh.148	t(14)=0.707, p=0.491

Note: lh left hemisphere; rh right hemisphere.

Table S3. Using the atlas-based FC seeds approach, group differences in FC of left and right seeds in the parietal cortex between children with and without the midbrain bundles retrieved (crossing the midline in the posterior commissure)

Labels of atlas regions in left and right hemispheres	Independent-sample t-test for the comparison in FC between left and right seeds (mentioned in left column) between children with and without the midbrain bundles retrieved
lh.125 <> rh.126	t(14)=0.494, p=0.629
lh.127 <> rh.128	t(14)=-0.194, p=0.849
lh.129 <> rh.130	t(14)=-0.23, p=0.982
lh.131 <> rh.132	t(14)=0.277, p=0.786
lh.133 <> rh.134	t(14)=0.666, p=0.516
lh.135 <> rh.136	t(14)=0.219, p=0.830
lh.137 <> rh.138	t(14)=-0.342, p=0.737
lh.139 <> rh.140	t(14)=-0.630, p=0.539
lh.143 <> rh.144	t(14)=-0.208, p=0.838
lh.147 <> rh.148	t(14)=0.122, p=0.904

Note: lh left hemisphere; rh right hemisphere.

Table S4. Correlations between individual's structural and microstructural bundle properties and bundle-seed FC.

	Number of Streamlines	Tract Volumes	Fractional Anisotropy (FA)
Ventral forebrain bundle			
Bundle-seed FC	r(5)=0.546, p=0.341	r(5)=-0.475, p=0.418	r(5)=-0.227, p=0.713
Midbrain bundle			
Bundle-seed FC	r(4)=-0.847, p=0.153	r(4)=-0.863, p=0.137	r(4)=0.656, p=0.344

Supplementary Figure

Figure S1. Visualisation of the ventral forebrain and midbrain as defined by Tovar-Moll and colleagues (2014) using tractography in CD and TDC participants.

CD 022	Ventral forebrain
	Midbrain
CD 011	Midbrain
CD 026	Midbrain
TDC, n=2	Midbrain