

On-line Table 1: Encephalic growth—size attained at 22 completed weeks, average weekly increase, and percent growth rate from 20 to 24 completed weeks

	Size at 22 Weeks		Average Weekly Increase			Growth Rate (%)	
	Mean	(95% CI)	Mean	(95% CI)	P	Mean	(95% CI)
PCF	29.3	(29.0–29.7)	1.58	(1.28–1.89)	<.01	5.40	(4.36–6.44)
cerebral FOD	58.5	(58.0–59.1)	3.67	(3.19–4.15)	<.01	6.26	(5.44–7.08)
cerebral BPD	43.2	(42.8–43.7)	2.30	(1.94–2.65)	<.01	5.31	(4.49–6.14)
vermian APD	7.35	(7.25–7.45)	0.53	(0.44–0.62)	<.01	7.25	(6.03–8.48)
cerebellar LLD	22.4	(22.2–22.7)	1.26	(1.05–1.47)	<.01	5.62	(4.67–6.57)
vermian CCD	10.5	(10.3–10.7)	0.80	(0.67–0.94)	<.01	7.63	(6.35–8.92)
CSA	72.5	(71.4–73.5)	0.50	(–0.40–1.40)	.271	0.69	(–0.55–1.94)
LCC	18.8	(18.5–19.1)	1.73	(1.48–1.98)	<.01	9.22	(7.89–10.55)
LCC/cerebral FOD (%)	31.7	(31.3–32.1)	1.03	(0.66–1.39)	<.01	3.24	(2.08–4.39)
thecal FOD	65.2	(64.7–65.8)	3.81	(3.33–4.30)	<.01	5.84	(5.10–6.59)
thecal BPD	51.0	(50.5–51.5)	2.68	(2.26–3.09)	<.01	5.24	(4.43–6.06)
mesencephalic APD	4.50	(4.41–4.59)	0.05	(–0.03–0.13)	.220	1.08	(–0.65–2.80)
pontine APD	6.84	(6.75–6.93)	0.31	(0.24–0.39)	<.01	4.60	(3.46–5.74)
pontine CCD	7.69	(7.58–7.79)	0.31	(0.22–0.40)	<.01	4.01	(2.82–5.20)
Lateral ventricles	6.64	(6.46–6.82)	–0.20	(–0.36 to –0.04)	.012	–3.02	(–5.38 to –0.66)

Note:—APD indicates antero-posterior diameter; BPD, biparietal diameter; CCD, cranio-caudal diameter; CI, confidence interval; CSA, clivus supraoccipital angle; FOD, fronto-occipital diameter; LCC, length of the corpus callosum; LLD, latero-lateral diameter; PCF, latero-lateral diameter of the posterior cranial fossa.

On-line Table 2: Encephalic growth—difference between sexes in the size attained at 22 completed weeks

	Females		Males		Males vs Females		P
	Mean	(95% CI)	Mean	(95% CI)	Diff	(95% CI)	
PCF	28.6	(28.0–29.1)	30.1	(29.6–30.5)	1.51	(0.81–2.21)	<.01
cerebral FOD	57.9	(57.0–58.7)	59.2	(58.5–59.9)	1.32	(0.22–2.42)	<.01
cerebral BPD	42.9	(42.3–43.5)	43.6	(43.0–44.1)	0.66	(–0.15–1.47)	.111
vermian APD	7.37	(7.22–7.53)	7.33	(7.19–7.46)	–0.05	(–0.25–0.16)	.661
cerebellar LLD	22.1	(21.7–22.4)	22.8	(22.5–23.1)	0.75	(0.26–1.24)	.003
vermian CCD	10.4	(10.1–10.6)	10.6	(10.4–10.8)	0.27	(–0.04–0.57)	.090
CSA	71.4	(69.8–73.0)	73.6	(72.2–74.9)	2.20	(0.14–4.27)	.036
LCC	18.6	(18.2–19.1)	19.0	(18.6–19.3)	0.31	(–0.24–0.87)	.268
LCC/cerebral FOD (%)	31.8	(31.3–32.4)	31.6	(31.1–32.0)	–0.26	(–0.99–0.48)	.488
thecal FOD	64.6	(63.7–65.4)	65.9	(65.2–66.6)	1.37	(0.25–2.49)	.016
thecal BPD	50.5	(49.8–51.2)	51.6	(50.9–52.2)	1.08	(0.13–2.03)	.025
mesencephalic APD	4.48	(4.35–4.62)	4.52	(4.41–4.63)	0.04	(–0.14–0.21)	.689
pontine APD	6.82	(6.69–6.96)	6.85	(6.74–6.97)	0.03	(–0.15–0.21)	.739
pontine CCD	7.60	(7.45–7.76)	7.77	(7.63–7.90)	0.16	(–0.04–0.37)	.119
Lateral ventricles	6.62	(6.35–6.89)	6.66	(6.43–6.89)	0.04	(–0.32–0.39)	.844

Note:—Diff indicates difference; APD, antero-posterior diameter; BPD, biparietal diameter; CCD, cranio-caudal diameter; CI, confidence interval; CSA, clivus supraoccipital angle; LCC, length of the corpus callosum; LLD, latero-lateral diameter; FOD, fronto-occipital diameter; PCF, latero-lateral diameter of the posterior cranial fossa.

On-line Table 3: Encephalic growth—difference between sexes in the average weekly increase from 20 to 24 completed weeks

	Females		Males		Males vs Females		
	Mean	(95% CI)	Mean	(95% CI)	Diff	(95% CI)	P
PCF	1.45	(1.00–1.91)	1.71	(1.30–2.12)	0.25	(–0.36–0.86)	.411
cerebral FOD	3.69	(2.97–4.41)	3.64	(3.00–4.28)	–0.05	(–1.01–0.91)	.916
cerebral BPD	2.34	(1.81–2.88)	2.25	(1.78–2.72)	–0.09	(–0.80–0.62)	.797
vermian APD	0.61	(0.47–0.74)	0.46	(0.34–0.58)	–0.14	(–0.33–0.04)	.114
cerebellar LLD	1.19	(0.88–1.51)	1.33	(1.04–1.61)	0.13	(–0.29–0.56)	.540
vermian CCD	0.76	(0.56–0.96)	0.84	(0.66–1.02)	0.08	(–0.19–0.35)	.565
CSA	–0.20	(–1.55–1.15)	1.21	(0.01–2.40)	1.41	(–0.39–3.21)	.124
LCC	1.69	(1.31–2.08)	1.77	(1.45–2.10)	0.08	(–0.42–0.58)	.756
LCC/cerebral FOD (%)	0.97	(0.42–1.53)	1.08	(0.61–1.55)	0.10	(–0.63–0.83)	.779
thecal FOD	3.85	(3.12–4.57)	3.78	(3.13–4.43)	–0.07	(–1.04–0.91)	.894
thecal BPD	2.68	(2.06–3.30)	2.67	(2.12–3.23)	–0.01	(–0.84–0.83)	.988
mesencephalic APD	0.01	(–0.11–0.13)	0.08	(–0.02–0.19)	0.07	(–0.08–0.23)	.360
pontine APD	0.29	(0.18–0.41)	0.33	(0.23–0.44)	0.04	(–0.12–0.20)	.620
pontine CCD	0.29	(0.16–0.43)	0.32	(0.20–0.44)	0.03	(–0.15–0.21)	.761
Lateral ventricles	–0.15	(–0.38–0.09)	–0.26	(–0.46 to –0.05)	–0.11	(–0.42–0.20)	.486

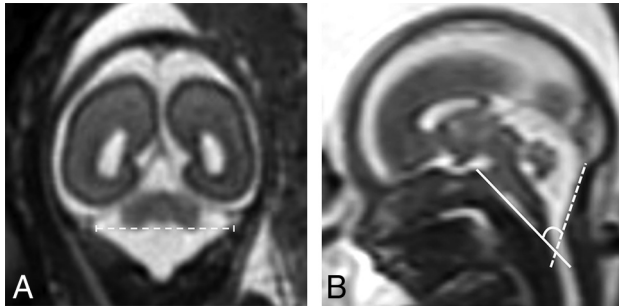
Note:—APD indicates antero-posterior diameter; BPD, biparietal diameter; CCD, cranio-caudal diameter; CI, confidence interval; CSA, clivospinoacipital angle; Diff, difference; LCC, length of the corpus callosum; LLD, latero-lateral diameter; FOD, fronto-occipital diameter; PCF, latero-lateral diameter of the posterior cranial fossa.

On-line Table 4: Interindividual coefficient of variation between 20 and 24 completed weeks and skewness index

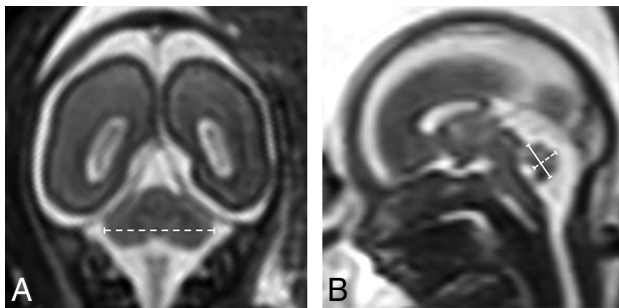
	20 Weeks	21 Weeks	22 Weeks	23 Weeks	24 Weeks	L ^a
	CV%	CV%	CV%	CV%	CV%	
PCF	22.9	23.4	23.8	24.3	24.8	0.537
cerebral FOD	18.9	18.5	18.2	17.9	17.6	–0.531
cerebral BPD	13.9	16.3	18.8	21.3	23.8	–1.052
vermian APD	25.9	26.6	27.3	28.0	28.7	–0.517
cerebellar LLD	18.5	20.2	21.9	23.7	25.4	–0.171
vermian CCD	25.5	26.8	28.2	29.5	30.9	2.457
CSA	22.7	25.1	27.5	29.9	32.4	–0.774
LCC	24.6	26.4	28.3	30.2	32.1	2.056
LCC/cerebral FOD (%)	17.6	21.0	24.4	27.8	31.2	1.468
thecal FOD	15.2	16.1	17.1	18.1	19.1	–0.744
thecal BPD	17.2	17.7	18.2	18.7	19.2	–1.006
mesencephalic APD	36.1	34.6	33.2	31.7	30.2	0.881
pontine APD	23.2	23.7	24.2	24.6	25.1	1.128
pontine CCD	23.4	24.8	26.3	27.7	29.1	1.217
Lateral ventricles	39.6	45.6	51.6	57.7	63.7	0.424

Note:—L-value indicates skewness parameter; APD, antero-posterior diameter; BPD, biparietal diameter; CCD, cranio-caudal diameter; CSA, clivospinoacipital angle; CV, coefficient of variation; FOD, fronto-occipital diameter; LCC, length of the corpus callosum; LLD, latero-lateral diameter; PCF, latero-lateral diameter of the posterior cranial fossa.

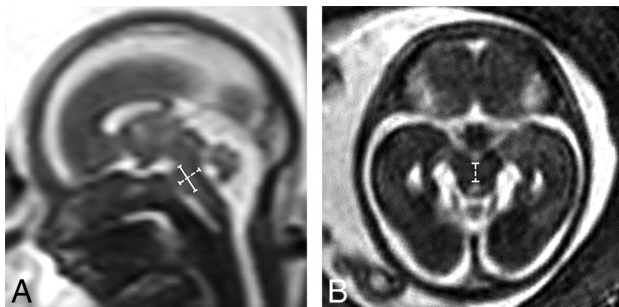
^a A negative L-value denotes a positive skewness.



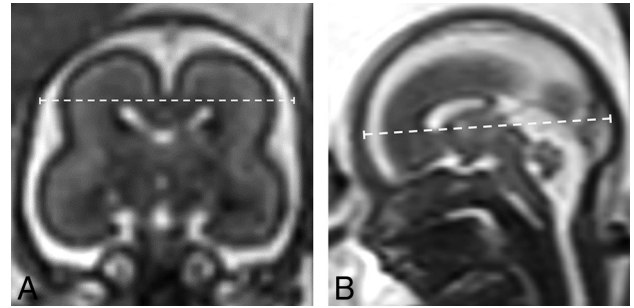
ON-LINE FIG 1. Measurements of the posterior fossa. *A*, The PCF is the distance of the medial surfaces of the lateral bone margins of the posterior fossa at the level of the lateral insertions of the tentorium cerebelli. *B*, The CSA is included between the line along the postero-superior surface of the clivus connecting the most cranial part of the clivus with the anterior border of the foramen magnum (*continuous line*) and the line along anterosuperior surface of the supraocciput intersecting the posterior border of the foramen magnum (*dashed line*).



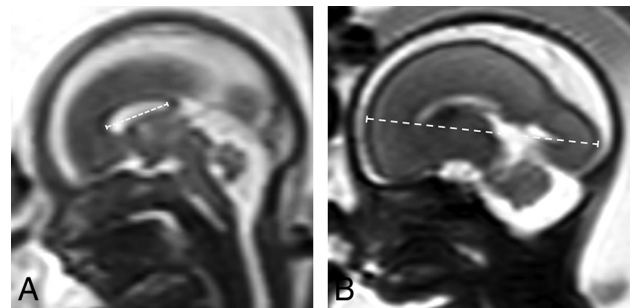
ON-LINE FIG 2. Measurements of the cerebellum. *A*, cerebellar LLD measured on the posterior coronal slice at the level of the atria. *B*, vermis CCD (*continuous line*) and vermis APD (*dashed line*) are measured on the midline sagittal slice.



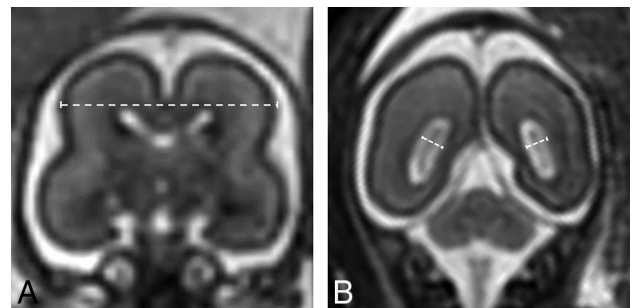
ON-LINE FIG 3. Measurement of the brain stem. *A*, pontine CCD (*continuous line*) and pontine APD (*dashed line*) are measured on the midline sagittal slice. *B*, mesencephalic APD is measured on the axial slice (orbitomeatal plane) at the level of the interpeduncular fossa.



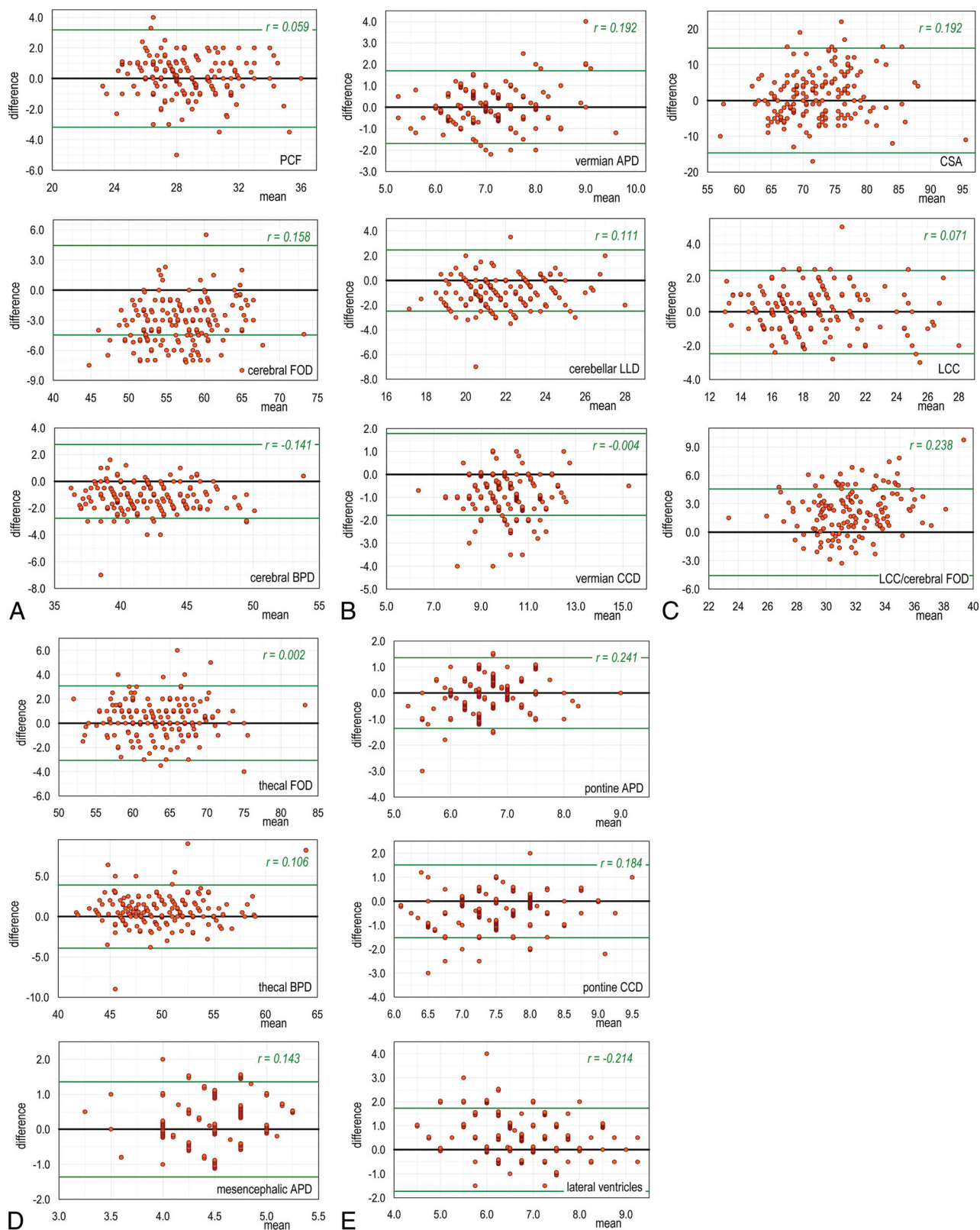
ON-LINE FIG 4. Measurements of the theca. *A*, Thecal BPD is measured on a coronal slice at the level of the temporal horns of the lateral ventricles. *B*, The thecal FOD is measured on the midline sagittal slice.



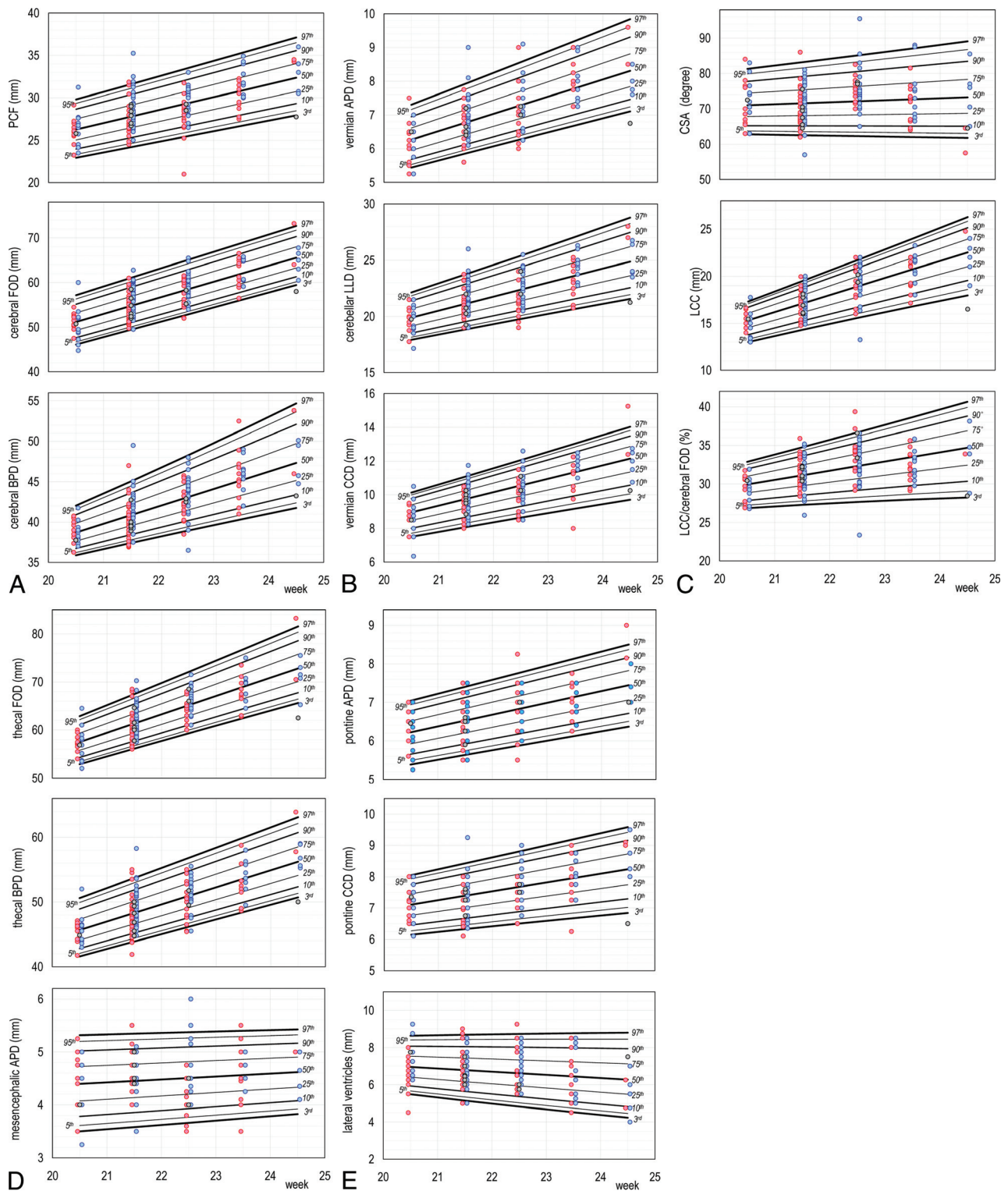
ON-LINE FIG 5. Measurements of the cerebrum. *A*, LCC is measured from the anterior-to-posterior inner surfaces. *B*, The cerebral FOD is measured on the sagittal paramedian slice for each hemisphere along the maximum diameter, and the average is considered.



ON-LINE FIG 6. Measurements of the cerebrum. *A*, The cerebral BPD is measured on a coronal slice at the level of the temporal horns of the lateral ventricles. *B*, The width of the atria of the lateral ventricles is measured on a coronal slice perpendicular to that of the ventricles at midheight of the atrium.



ON-LINE FIG 7. Bland-Altman plots of the interassessor B–A difference versus the mean of the measurements made on a single fetus. *Green lines* are the limits of agreement for B–A difference: Ninety-five percent of these differences are expected to lie within these limits when the agreement between the 2 assessors is perfect.



ON-LINE FIG 8. Reference charts for encephalic growth: A whole set of computed centiles (3rd, 5th, 10th, 25th, 50th, 75th, 90th, 95th, 97th) with observed values. Females are denoted by pink dots, males by cyan dots, fetuses of sex unknown by gray dots.