List of errata

This list of errata contains errors and their corrections for the dissertation thesis titled "Magnetic resonance imaging and advanced imaging assessment of the growth plate in the adolescent and young adult"

Notification of submission (Spikblad)Magnetic resonance imaging of the growth plate in adolescent and young adultMagnetic resonance imaging and advanced imaging assessment of the growth plate in the adolescent and young adultPage 3, Paragraph 2, Line 5 and 7IHHIhhPage 7, Paragraph 2, Line 5 Page 8, Figure Caption, Line 3Computer-based skeletal age scoring BAComputer-assisted skeletal age scoresPage 11, Paragraph 1, Line 5 ange 16, Paragraph 3, Line 4growth plates are of not of equal importancegrowth plates are not of equal importancePage 16, Paragraph 3, Line 4 Page 17, Paragraph 3, Line 4To avoid misinterpreting the apparent diffusion coefficient (ADC) can be calculated by subtracting the image with high b-value from B0 image.To avoid misinterpreting the DWI image apparent diffusion ospherical orPage 17, Paragraph 1, Line 3 Page 17, Paragraph 1, Line 4IsotopicLostopicPage 17, Paragraph 1, Line 4 Page 19, Paragraph 1, Line 5IsotopicIsotropicPage 19, Paragraph 1, Line 4 Page 19, Paragraph 1, Line 5to have fluctuated with from betweento have fluctuated from between14 Page 19, Paragraph 2, Line 7 Page 19, Paragraph 2, Line 7(15 to 16 years of age)Text deletedPage 24, top box left side Page 24, botom box left sidevisualize flue growth plate?visualize the growth plate?Page 24, botom box left side Page 24, botom box left sideother modalities (CT)? or histology?other modalities like CT or histology?Page 24, botom box left side Page 30, paragraph 6, line 2other mod	Page, paragraph, line	Original Text	Corrected text
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Page 47, figure 16. "(B)" is written in bold "(B)" is the correct format	Page 47, figure 16	"(B)" is written in bold	"(B)" is the correct format
Page 54. Equation between \sqrt{NEX} (scan time= number of phase Scan time= number of phase encoding x	Page 54. Equation between	$\sqrt{\text{NEX}}$ (scan time= number of phase	Scan time= number of phase encoding \mathbf{x}
paragraph 1 and 2 TR x NEX	paragraph 1 and 2		TR x NEX

Page 55, paragraph 1, line 9	number of alternatives choose from.	number of alternatives to choose from.
Page 56, paragraph 2, line 1	Improvements innutrition	Improvements in nutrition
Page 57, paragraph 1, line 2	In males14% were	In males 14% were
Page 57, paragraph 2, line 12	This is a significant increase among the 19-	The statement is missing its reference
	year-olds compared to an autopsy study that	which is McKern et al. (Reference# [66]
	found only 40.3% (21/52) of 19-year-old	in the dissertation thesis).
	males with completely closed growth plates	Correct ending of the sentence is:
	in the distal radius.	growth plates in the distal radius [66].
Page 58, paragraph 1, line 12	bone so it still detectable on T1W.	bone so it is still detectable on T1W.
Page 60, paragraph 2, line 8	results the render DTI feasible in clinical	results that render DTI feasible in
	setting.	clinical setting.
Page 62, paragraph 2, line 2	Tractography calculated from DTI is a	Tractography calculated from DTI is a
	promising too to assess	promising method to assess
Page 63, paragraph 1, line 6	An non-ionizing method with	A non-ionizing method with
Page 63, paragraph 1, line 12	no consensus has around whether fusion	no consensus whether fusion follows
	follows	
Page 63, paragraph 2, line 5	performed on different MRI scanners still	performed on different MRI scanners
	can be comparable.	can be comparable.
Page 63, paragraph 4, line 4	while and reducing the need for	while reducing the need for
Study 2, Abstract, Results	obese or overweight subects	obese or overweight subjects
Study 3, 2.2 MRI imaging,	FOV 6) x 60 x 60 mm ³	FOV $60 \ge 60 \ge 60 = 60 = 60 = 60 = 60 = 60 = $
paragraph 3, line 3	"con :	
Study 3, page 8, Figure 6,	"CC" is missing	CC= calcified cartilage in the metaphysis
line 9		
Study 4 Material &	(registration number XXXX-XXXX)	(registration number 2017/4-31/4 for the
Methods line 2	(regionation number AAAA-AAAA)	main study and 2017/1773-32 for the
memous, me 2		amendment regarding DTI)
		unionalitent regulating D 11)

encoding x TR x NEX).

Title Page Study IV:

DTI assessment of the maturing growth plate of the knee in adolescents and young adults.

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Running title: Diffusion tensor imaging assessment of the growth plate closure.

Supplemental material to Study IV: Supplemental material 1. (S1)

Assessment of skeletal maturation of everyone in the study.

All images in an examination were assessed and rated according to a staging system developed from the developmental stages by Kellinghaus' modified version of Schmeling's developmental stages [1, 2] and the developmental stages by Dedouit et al. [3] with minor modifications. We defined the scale as the following:

- Stage 1. Continuous, stripe-like, cartilage signal intensity is present between the metaphysis and the epiphysis with a thickness greater than 1.5mm with a multilaminar appearance.
- Stage 2. Continuous cartilage signal intensity is present between the metaphysis and the epiphysis with a thickness greater than 1.5 mm with increased signal intensity but without a multilaminar appearance.
- Stage 3. Continuous cartilage signal intensity is present between the metaphysis and the epiphysis with a thickness less than 1.5mm with increased signal intensity.
- Stage 4a. The cartilage is not continuous. A hazy area involving one third or less of the growth plate is present between the metaphysis and the epiphysis, representing epiphyseal-metaphyseal fusion.
- Stage 4b. The cartilage is not continuous. A hazy area involving between one third and two thirds of the growth plate is present between the metaphysis and the epiphysis, representing epiphyseal-metaphyseal fusion.
- Stage 4c. The cartilage is not continuous. A hazy area involving more than two thirds of the growth plate is present between the metaphysis and the epiphysis, representing epiphyseal-metaphyseal fusion.
- Stage 5. The epiphyseal cartilage has fused completely, with or without an epiphyseal scar.

The image with the highest grade of closure was selected and graded according to the modified staging system with the exception for Stage 5. To be graded as Stage 5 then the growth plate had to be completely closed on all images.

Supplemental material 2. (S2)

Tract based values from the femoral growth plate measured on the DTI sequence. (All data are shown as mean and standard deviation.) No growth plate was completely fused in the 14-year-old females, or the males aged between 14 to 16 years of age. The growth plate was completely fused in all 19–21-year-old, both female and male.

	Age (years)	Tract Tract	Tract	Tract		MD		PD
		number	length	volume	FA-value	$(10^{-3} \text{mm}^2/\text{s})$	$(10^{-3} \text{mm}^2/\text{s})$	$(10^{-3} \text{mm}^2/\text{s})$
			(mm)	(mm ³)		(10 1111 / 5)		
	14	6060.5	6.25	9546.8	0.29	0.99	1.26	0.85
		±3193.8	±0.42	±4100.5	±0.05	±0.07	±0.09	±0.07
	15	2951 ±	6.00	5176.8	0.36	0.99	1.36	0.81 ±
		3379.5	±0.61	± 5597.9	±0.08	±0.12	±0.18	0.12
	16	639.9	5.26	1126.1	0.48	0.88	1.33	0.66
	10	±338.3	±0.43	±597.5	±0.04	±0.11	±0.16	±0.09
	17	736.7	6.30	1959.7	0.46	0.93	1.41	0.70
Female	1/	±1279.2	±2.58	±2854.1	±0.05	±0.16	±0.26	±0.11
	19	609.6	5.79	1057.2	0.50	0.75	1.15	0.55
	18	±458.9	±0.63	±747.7	±0.02	±0.14	±0.21	±0.11
	19	484.7	6.15	869.5	0.50	0.86	1.33	0.63
		±355.4	±1.12	±622.1	±0.04	±0.111	±0.14	±0.10
	20	397.6	5.50	723.9	0.50	0.92	1.14	0.68
		±296.6	±0.67	±528.1	±0.04	±0.14	±0.19	±0.11
	21	541.8	5.92	978.3	0.51	0.81	1.25	0.58
	21	±263.8	±0.91	±473.3	±0.03	±0.10	±0.17	±0.07
	14	8841.5	6.35	13877.1	0.18	1.26	1.47	1,15
	14	±2109.6	±0.96	±3366.3	±0.05	±0.14	±0.13	±0.15
Male	15	7788.0	6.35	12875.1	0.25	1.14	1.41	1.00
		±2897.3	±0.70	±3150.8	±0.05	±0.18	±0.20	±0.17
	16	7755.1	6.01	12848.3	0.28	0.99	1.26	0.86
		±4024.6	±0.33	±6609.2	±0.06	±0.18	±0.18	±0.18
	17	3323.6	5.88	4817.4	0.38	0.88	1.22	0.71
	1/	±2834.7	±0.68	±4254.5	±0.09	±0.10	±0.14	±0.10
	18	1960.5	6.10	3384	0.41	0.87	1.25	0.68

		±2078.5	±0.50	±3456	±0.09	±0.18	±0.29	±0.14
	10	410.5	5.66	742.9	0.46	1.13	1.66	0.86
		±280.7	±0.61	±448.3	±0.06	±0.28	±0.35	±0.24
-	20	532.0	6.62	1033.4	0.48	0.85	1.29	0.63
		±197.9	±1.17	± 1915.8	±0.03	±0.13	±0.21	±0.09
	21	700.8	6.26	1353.3	0.47	0.91	1.35	$0.69 \pm$
	<u> </u>	±971.2	±0.87	± 1915.8	±0.05	±0.14	±0.20	0.12

Supplemental material 3. (S3)

Tract based values from the tibial growth plate measured on the DTI sequence. (All data are shown as mean and standard deviation.) In all age groups there was at least one female who had completely closed growth plate, whereas all males among the 14 and 16 years old had completely open growth plate. (There was one 15-year-old male with completely closed growth plate.) The growth plate was completely fused among all 18–21-year-old females and all 19–21-year-old males.

	Age (years)	Tract	Tract	Tract		MD	AD	RD
		number	length	volume	FA-value	$(10^{-3} \text{mm}^2/\text{s})$	$(10^{-3} \text{mm}^{2}/\text{s})$	$(10^{-3} \text{mm}^2/\text{s})$
	())		(mm)	(mm ³)		(()	(
	14	3727.8	6.50	6200.0	0.32	0.96	1.28	0.80
		±3175.7	±1.04	±5021.6	±0.09	±0.13	±0.21	±0.12
	15	699.7	5.77	1326.6	0.45	0.89	1.31	0.68
	10	±1190.9	±0.64	±2166.8	±0.08	±0.17	±0.22	±0.15
	16	490.9	5.92	911.9	0.48	0.88	1.33	0.65
	16	±392.2	±1.18	±776.9	±0.03	±0.20	±0.30	±0.16
	17	276.5	6.09	849.3	0.48	0.89	1.33	0.66
Female	17	±237.8	±1.69	±1166.4	±0.05	±0.30	±0.44	±0.23
	18	525.4	7.88	847.0	0.52	0.81	1.27	0.58
		±263.7	±4.39	±511.8	±0.04	±0.17	±0.26	±0.13
	19	363.1	7.52	731.4	0.52	0.79	1.23	0.57
		±253.1	±2.19	±521.2	±0.04	±0.07	±0.11	±0.06
	20	273.8	6.97	534.3	0.52	0.89	1.38	0.63
		±207.8	±1.86	±345.1	±0.02	±0.11	±0.16	±0.09
	21	371.9	7.99	739.7	0.53	0.78	1.25	0.56
	21	±177.3	±3.16	±381.3	±0.03	±0.11	±0.19	±0.08
	14	8112.2	7.22	13772.2	0.18	1.24	1.46	1.14
		±3308.3	±1.50	±5197.9	±0.06	±0.16	±0.14	±0.17
Male	15	5851.4	8.03	10595.4	0.26	1.12	1.40	0.98
		±3963.7	±2.32	±6531.0	±0.06	±0.16	±0.16	±0.16
	16	5084.3	7.47	8327.0	0.33	0.94	1.25	0.79
		±4698.2	±1.27	± 6540.0	±0.10	±0.15	±0.13	±0.17
	17	1116.7	5.85	1527.0	0.41	0.95	1.35	0.75

	±1020.1	±0.71	±1047.9	±0.07	±0.17	±0.23	±0.15
18	703.6	6.44	1305.4	0.45	0.89	1.31	0.68
10	± 560.9	±1.03	±974.5	± 0.08	±0.19	±0.25	±0.17
10	322.1	6.10	621.9	0.52	0.88	1.38	0.63
19	±224.1	±1.32	±401.9	± 0.05	±0.22	±0.32	±0.17
20	515.0	7.91	1041.6	0.48	0.78	1.17	0.59
20	±247.5	±1.95	±418.4	±0.05	±0.16	±0.19	±0.14
21	270.6	6.46	524.4	0.49	0.76	1.16	0.56
21	±227.1	±1.51	±394.2	± 0.05	±0.21	±0.31	±0.16

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