

1 **Supplemental Table. 1.** Detailed description of anatomical locations with highest
 2 FAPI uptake per patient for degenerative, muscle and scarring / wound healing
 3 uptake.

	No. patients (N = 91)
Bone degenerative lesions	47
Shoulder, AC- and SC-joints	17
Spine and Sacrum	14
Hip joints and Pelvis	12
Cranio-mandibular Joints	3
Extremities (Patella)	1
Focal / localized muscle uptake	26
Rotator cuff	9
Autochthonous back muscles	6
Neck	4
Extremities	4
Hip muscles	2
Latissimus dorsi	1
Scarring / Wound healing	18
Inguinal (post cardiovascular intervention)	9
Abdominal (laparotomy)	3
thoracic	4
Head	2

5 **Supplemental Table. 2.** Detailed uptake values for Ga-68-FAPI04 and Ga-68-
 6 FAPI46 for the respective categories and background uptake values.
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	SUVmax	SUVpeak	SUVmean
Degenerative lesions			
Mean (SD) FAPI46	7.6 (3.0)	4.3 (1.9)	4.3 (1.8)
Mean (SD) FAPI04	7.8 (2.7)	4.4 (1.3).	4.1 (1.8)
Focal or localized muscle uptake			
Mean (SD) FAPI46	6.1 (2.4)	4.3 (1.5)	3.8 (1.7)
Mean (SD) FAPI04	5.8 (1.8)	3.9 (1.2).	3.3 (1.0)
Scarring and wound healing			
Mean (SD) FAPI46	7.6 (3.1)	4.8 (1.8)	4.7 (1.9)
Mean (SD) FAPI04	8.1 (5.0)	4.9 (2.7).	4.2 (2.2)
Mammary glands			
Mean (SD) FAPI46	4.4 (1.8)	2.5 (0.7)	2.6 (1.0)
Mean (SD) FAPI04	4.8 (0.7)	3.0 (1.3).	2.8 (0.3)
Uterine uptake			
Mean (SD) FAPI46	13.1 (8.2)	10.4 (6.4)	8.2 (5.1)
Mean (SD) FAPI04	10.7 (5.5)	8.2 (4.4).	6.1 (3.8)
Salivary glands			
Mean (SD) FAPI46	3.2 (0.2)	2.5 (0.1)	2.4 (0.1)
Mean (SD) FAPI04	3.1 (0.1)	2.4 (0.2).	2.0 (0.3)
SUV_{mean} gluteal background			
Mean (SD)	1.8 (0.5)	1.4 (0.5)	1.1 (0.4)
Median [Min, Max]	1.8 [1.2; 3.1]	1.3 [0.8; 2.7]	1.0 [0.7; 2.3]

SUV_{mean} liver background

Mean (SD)	1.3 (0.4)	1.0 (0.4)	0.8 (0.4)
Median [Min, Max]	1.2 [0.7; 2.3]	0.9 [0.6; 1.7]	0.6 [0.4; 1.6]

SUV_{mean} bloodpool background

Mean (SD)	2.0 (0.5)	1.5 (0.4)	1.3 (0.4)
Median [Min, Max]	1.9 [1.3; 3.1]	1.4 [1.9; 2.5]	1.2 [0.8; 2.2]
