

## Supporting information for: 'Evaluation of spectral photon counting computed tomography K-edge imaging for determination of gold nanoparticle biodistribution in vivo'

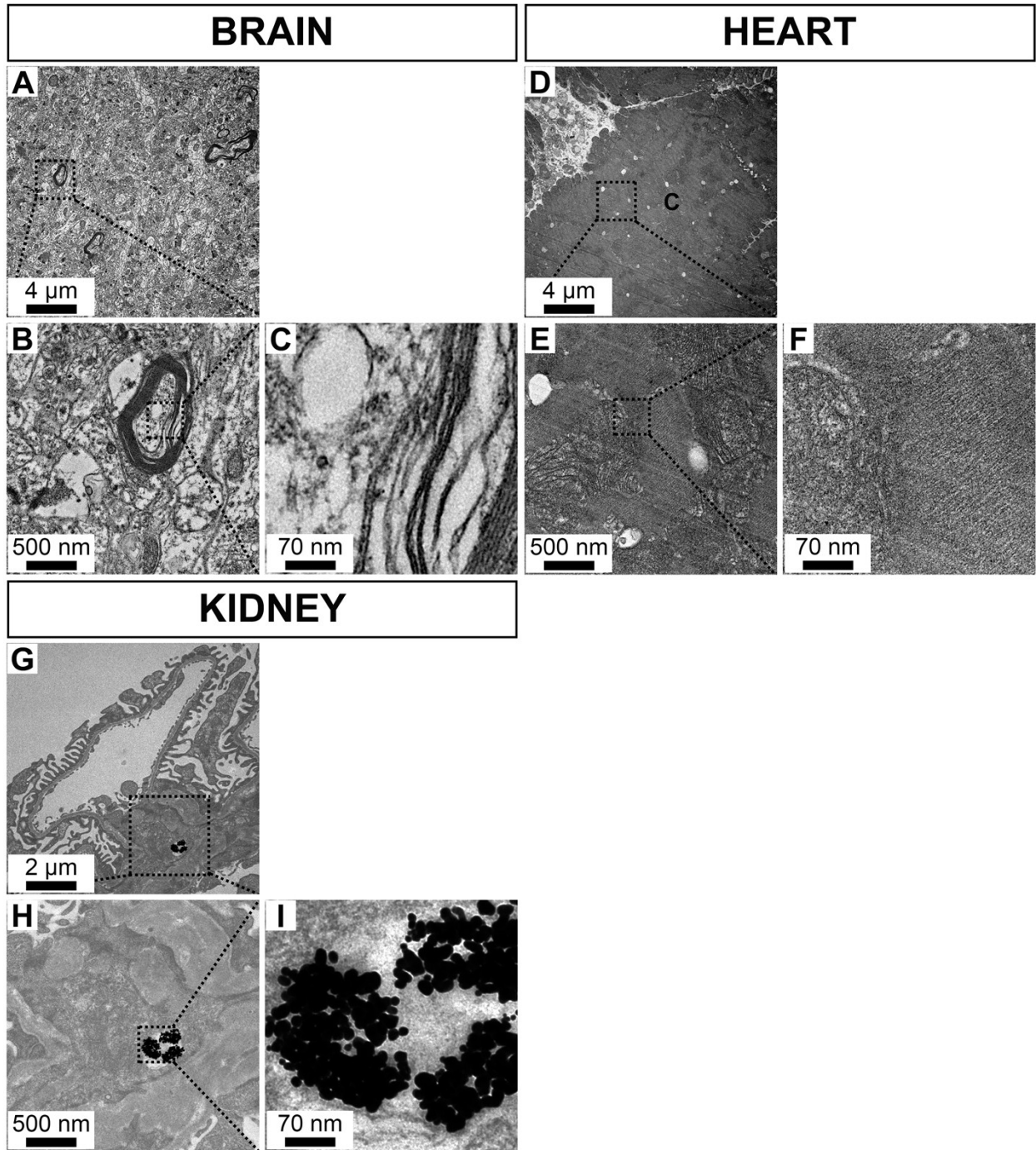
Organs	D1		W1		M1		M6			
	T1	T2	★	★	★	★	★	★		
	Mean (mg/ml)	S.D. (mg/ml)	Mean (mg/ml)	S.D. (mg/ml)	Mean (mg/ml)	S.D. (mg/ml)	Mean (mg/ml)	S.D. (mg/ml)	Mean (mg/ml)	S.D. (mg/ml)
Blood	4.15	0.54	3.94	0.72	0.26	0.35	0.18	0.45	0.14	0.21
Spleen	2.44	0.53	2.29	0.71	3.39	0.66	4.08	0.62	4.89	0.74
Liver	1.88	0.81	1.44	0.70	1.57	0.67	1.47	0.60	1.93	0.43
Bone marrow	1.59	0.61	1.57	0.63	2.86	0.51	3.56	0.41	3.08	0.94
Kidney	1.42	0.70	1.32	0.60	0.72	0.66	0.42	0.70	0.28	0.35
Renal pelvis	1.84	0.80	2.41	0.78	0.62	0.57	0.06	0.97	0.19	0.21
Brain	0.45	0.73	0.38	0.96	0.44	0.46	0.50	0.48	0.14	0.48
Myocardium	3.21	0.87	1.22	0.43	0.38	0.56	0.29	0.49	0.29	0.49
Muscle	0.65	0.53	0.58	0.50	0.29	0.42	0.33	0.56	0.36	0.58
Lymph nodes					2.36§	0.50§	6.69§	0.79§	7.22§	0.49§

T1: the first acquisition after gold nanoparticles (AuNP) injection from 30 to 45 seconds. T2: the second acquisition after AuNP injection from 7 to 8 minutes. W1: acquisition at 1 week. M1: acquisition at 1 month. Pre-injection measurements (T0) are not presented in the table. S.D. are standard deviation of the noise in the regions of interest.

★ One imaging session was performed at the 1 week (W1), 1 month (M1) and 6 month (M6) time points.

§ Lymph nodes were observed in the scans at one week, one month and six months.

**Table** AuNP content of several organs (expressed in Au concentration) at various timepoints, as determined from SPCCT image analysis.



**Figure S1** Transmission electron micrographs of rabbit brain, heart and kidney 6 months after AuNP injection over a range of magnifications. **A-C**: heart (C: cardiomyocyte), **D-F**: brain, **G-I**: kidney.