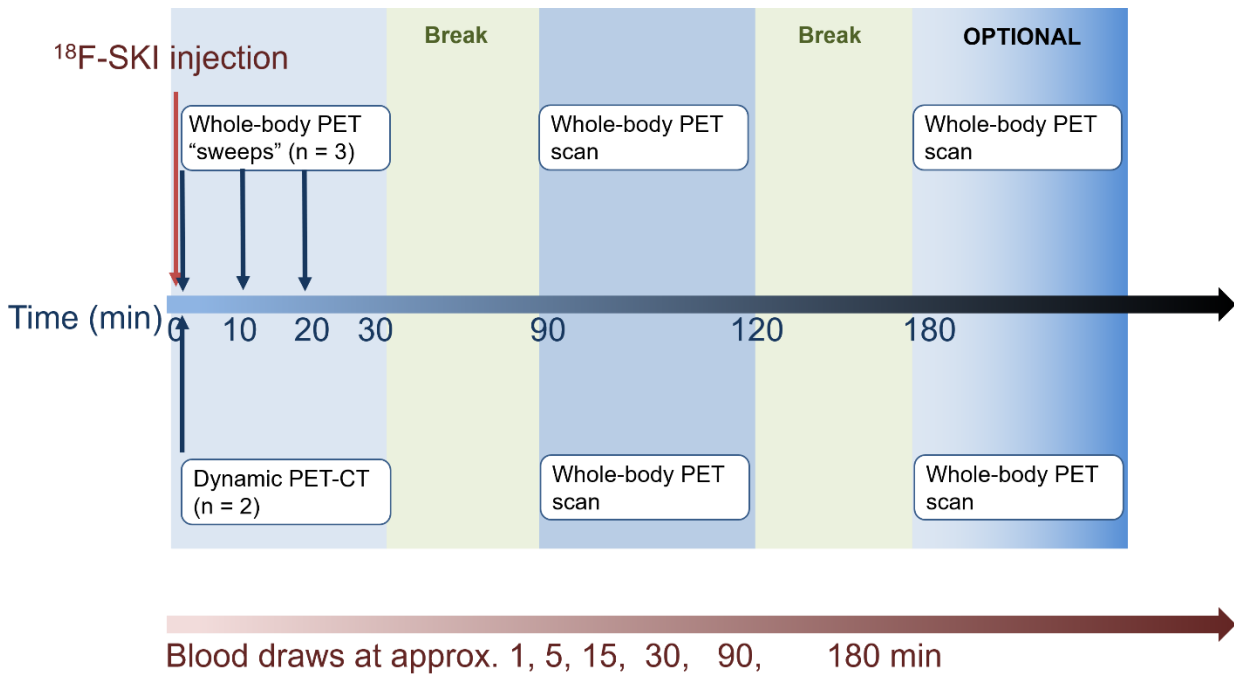
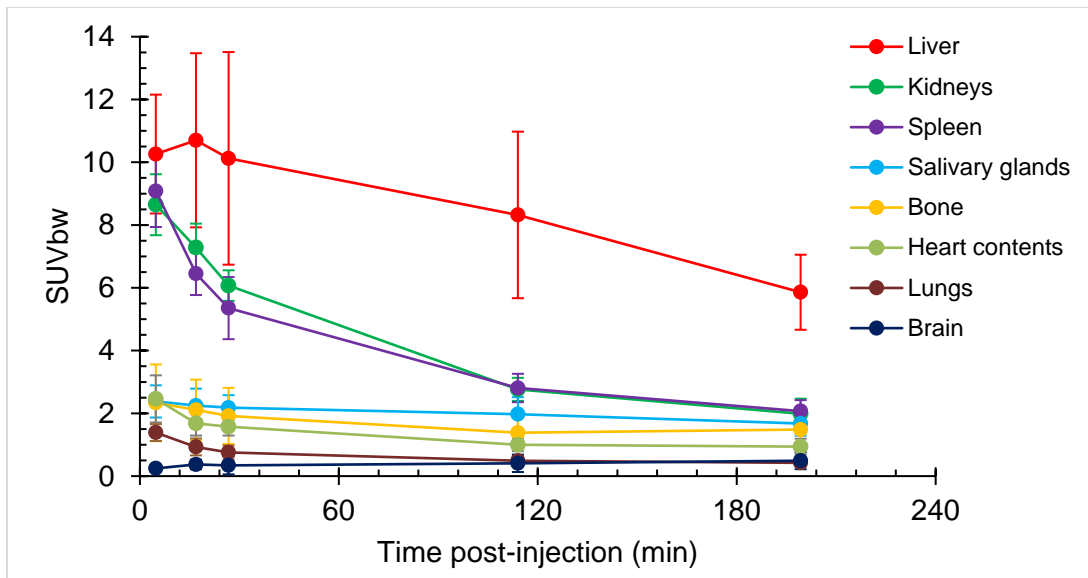


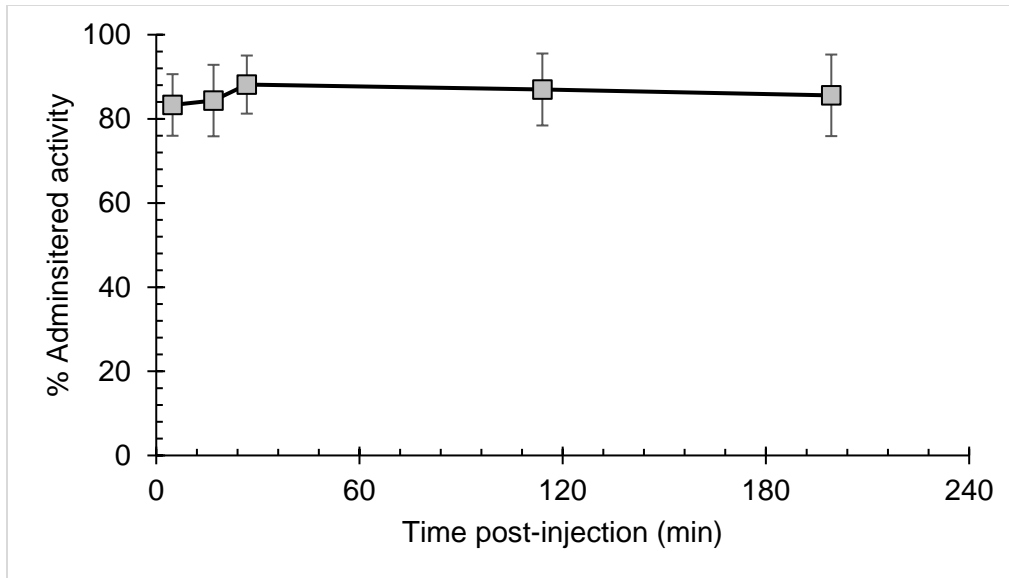
SUPPLEMENTAL FIGURE 1. Synthesis of ^{18}F -SKI. ^{18}F -SKI was manufactured by ^{18}F -fluoride nucleophilic incorporation onto the precursor molecule, followed by drug substance isolation by preparatory HPLC purification. The mass of ^{18}F -SKI in the final drug product was calculated by comparing the area under the curve for the corresponding UV peak against the mass standard curve of known concentrations of ^{19}F -SKI-249380 at 320 nm.



SUPPLEMENTAL FIGURE 2. Study scheme. Time-points for tracer injection, scans, and blood draws; in min post-injection (p.i.). *Includes 3 low-dose CT scans (0, 90, 180 min p.i.). For two patients, the 0-30 min p.i. PET-CT scanning includes dynamic PET scanning over a single field-of-view. For the other three patients, the 0-30 min p.i. scanning includes 1 CT scan applied to three consecutive 10-minute PET scans suited for imaging early time-dependent changes in biodistribution, as well as tracer-excretion. Blood draws are for metabolite analysis, plasma and whole blood activity assay.



SUPPLEMENTAL FIGURE 3. PET-derived organ time-activity curves for ^{18}F -SKI. Organ activities are expressed as SUVbw, the SUV normalized to body weight. The data points and error bars are the mean values and standard deviations, respectively, of the SUVbw at each PET imaging time point for the five patients.



SUPPLEMENTAL FIGURE 4. PET-derived total-body time-activity curve for ^{18}F -SKI. The activity is expressed as the decay-corrected percent of the administered activity. The data points and error bars are the mean values and standard deviations, respectively, of the percent of the administered activity at each PET imaging time point for the five patients.

Fraction counting							
Time (min)	Metabolite (M)	Pt # (% ROI)				Avg	STD
		1	3	4	5		
5	M1	12.28	12.28	6.94	11.94	10.9	2.6
	M2	4.24	4.24	1.97	5.25	3.9	1.4
	¹⁸ F-SKI	83.48	83.48	91.09	82.81	85.2	3.9
15	M1	24.01	24.01	15.8	35	24.7	7.9
	M2	8.34	8.34	6.13	3.8	6.7	2.2
	¹⁸ F-SKI	67.65	67.65	76.38	61.2	68.2	6.2
30	M1	39.36	39.36	32.22	54.02	41.2	9.2
	M2	6.67	6.67	12.49	3.94	7.4	3.6
	¹⁸ F-SKI	53.96	53.96	55.28	42.04	51.3	6.2

SUPPLEMENTAL TABLE 1. Metabolism of ¹⁸F-SKI. ¹⁸F-SKI radioactivity in plasma decreased rapidly, whereas those of its metabolite 1 (M1; not identified) increased, comprising about 40% of the total blood radioactivity (n=4).

Source Region	Time-Integrated Activity Coefficient (h)	
	Mean	SD
Heart contents	0.0123	0.00294
Liver	0.546	0.181
Spleen	0.0235	0.00620
Kidney	0.0471	0.00796
Bone	0.533	0.186
Salivaries	0.00283	0.000438
Brain	0.0208	0.0137
Lungs	0.0190	0.00620
Left-colon contents	0.0401	0.0135
Small-intestine contents	0.473	0.119
Right-colon contents	0.265	0.0624
Rectum contents	0.00615	0.00287
Urinary-bladder contents	0.000236	0.000364
Remainder of Body	0.347	0.380
Total Body	2.34	0.161

SUPPLEMENTAL TABLE 2. Source-region time-integrated activity coefficients (h) for ¹⁸F-SKI.