

## Supplemental Data

<b>Prostate Cancer Patients</b> <b><sup>123</sup>I-MIP-1072 Average Percent Injected Activity (n=7)</b>								
Source Organ	0 Hr	0.8 Hr	1.7 Hr	3.7 Hr	8.6 Hr	26.2 Hr	46.4 Hr	69.8 Hr
Brain	0.8	0.7	0.6	0.4	0.3	0.2	0.2	0.3
Salivary	1.9	1.8	1.6	1.3	1.1	0.6	0.4	0.4
Thyroid	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.1
Heart Wall	1.7	1.5	1.2	1.0	0.8	0.4	0.3	0.3
Lung	6.0	5.1	4.3	3.4	2.7	1.5	1.1	1.2
Liver	6.2	6.0	5.8	5.9	5.9	5.3	4.0	3.3
Spleen	1.4	1.2	1.0	0.8	0.7	0.4	0.4	0.3
Kidney	5.4	5.2	4.9	3.9	3.3	1.7	1.2	0.8
Total Body	100.0	95.1	85.9	74.8	62.3	36.7	30.0	35.4

<b>Prostate Cancer Patients</b> <b><sup>123</sup>I-MIP-1095 Average Percent Injected Activity (n=7)</b>								
Source Organ	0 Hr	0.9 Hr	1.7 Hr	3.7 Hr	5.7 Hr	23.6 Hr	46.7 Hr	70.4 Hr
Brain	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5
Salivary	2.0	2.2	2.3	2.3	2.5	2.6	2.4	1.7
Thyroid	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.4
Heart Wall	2.3	2.0	1.9	1.7	1.6	1.5	1.3	1.2
Lung	6.8	6.3	6.0	5.5	5.4	4.8	4.1	3.8
Liver	10.1	11.7	12.4	13.4	13.9	14.7	11.4	9.0
Spleen	1.6	1.6	1.6	1.3	1.3	1.3	1.1	1.0
Kidney	3.9	4.4	4.6	4.8	5.4	5.7	4.8	5.8
Total Body	100.0	99.4	99.5	97.1	97.6	95.1	85.3	81.3

<b>Healthy Volunteers</b> <b><sup>123</sup>I-MIP-1072 Average Percent Injected Activity (n=6)</b>						
Source Organ	0.4 Hr	1.1 Hr	2.3 Hr	4.4 Hr	24.1 Hr	47.5 Hr
Brain	0.7	0.7	0.4	0.3	0.1	0.1
Salivary	2.0	1.9	1.4	1.2	0.4	0.3
Thyroid	0.7	0.7	0.5	0.4	0.3	0.3
Heart Wall	1.1	1.0	0.7	0.6	0.2	0.1
Lung	4.2	3.8	2.5	2.2	0.7	0.7
Liver	6.9	6.9	6.1	6.1	4.3	2.3
Spleen	1.0	1.0	0.6	0.6	0.2	0.1
Kidney	6.7	6.9	5.6	4.8	1.3	0.6
Total Body	100.0	97.0	72.6	59.1	23.2	16.2

<b>Prostate Cancer Patients</b> <b><sup>123</sup>I-MIP-1072 Residence Times (Hr)</b>				
Source Organ	Mean	Minimum	Maximum	%SD
Brain	0.067	0.043	0.128	23
Salivary	0.175	0.115	0.304	41
Thyroid	0.035	0.018	0.058	36
Heart Wall	0.128	0.100	0.158	17
Lung	0.437	0.310	0.527	16
Liver	1.013	0.660	1.672	51
Spleen	0.111	0.074	0.153	26
Kidney	0.502	0.333	0.887	53
Bladder (4.8 hr void interval)	1.18	0.770	1.49	20
Fecal Excretion	8.5%	4.9%	11.7%	24
Remainder	6.05	4.46	7.76	21
Total Body	10.0	7.9	13.0	18

%SD = standard deviation expressed as a percentage of the mean

Prostate Cancer Patients <sup>123</sup> I-MIP-1095 Residence Times (Hr)				
Source Organ	Mean	Minimum	Maximum	%SD
Brain	0.125	0.100	0.194	32
Salivary	0.475	0.372	0.679	31
Thyroid	0.094	0.051	0.159	31
Heart Wall	0.301	0.234	0.409	21
Lung	0.958	0.750	1.132	13
Liver	2.53	1.90	3.87	37
Spleen	0.240	0.173	0.352	23
Kidney	0.976	0.502	1.557	64
Bladder (4.8 hr void interval)	0.134	0.035	0.330	31
Fecal Excretion	14.4%	10.7%	18.7%	17
Remainder	9.58	8.26	10.97	10
Total Body	176.0	16.6	18.7	4

%SD = standard deviation expressed as a percentage of the mean

Healthy Volunteers <sup>123</sup> I-MIP-1072 Residence Times (Hr)				
Source Organ	Mean	Minimum	Maximum	%SD
Brain	0.040	0.026	0.059	34
Salivary	0.149	0.099	0.196	24
Thyroid	0.068	0.051	0.112	32
Heart Wall	0.067	0.045	0.081	20
Lung	0.258	0.202	0.305	16
Liver	0.907	0.691	1.100	16
Spleen	0.069	0.038	0.116	40
Kidney	0.533	0.396	0.618	16
Bladder (4.8 hr void interval)	1.55	1.25	1.8	15
Fecal Excretion	6.3%	5.2%	8.2%	18
Remainder	4.45	3.23	5.52	21
Total Body	6.54	5.26	7.94	18

%SD = standard deviation expressed as a percentage of the mean