

Figure 1:

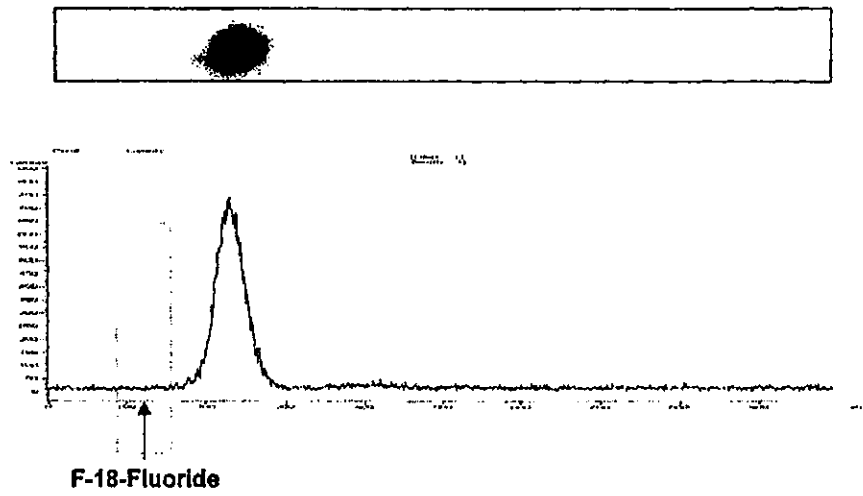


Figure 2:

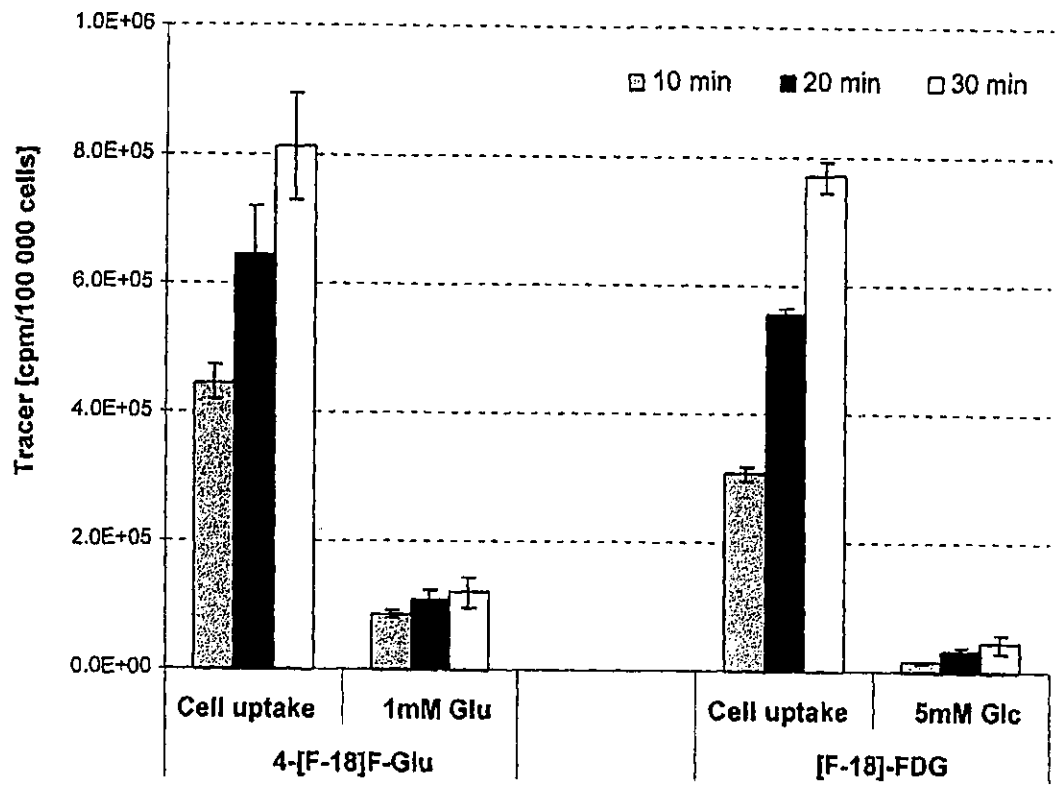


Figure 3:

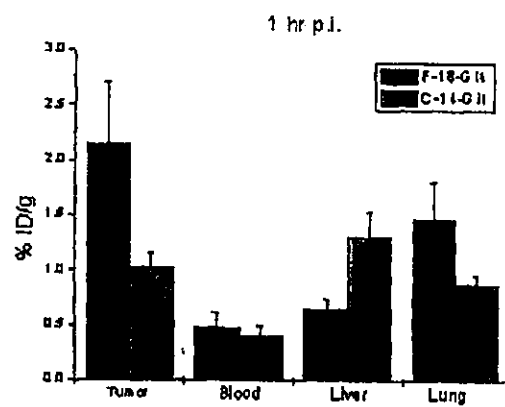


Figure 4:

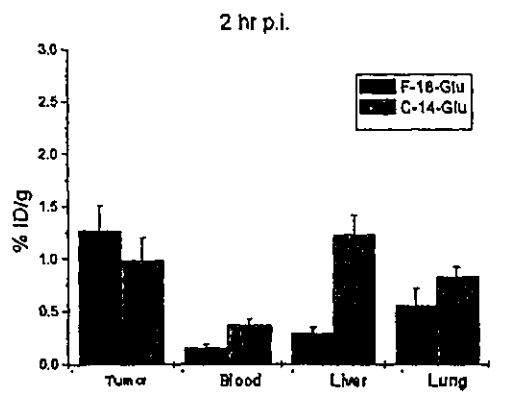


Figure 5:

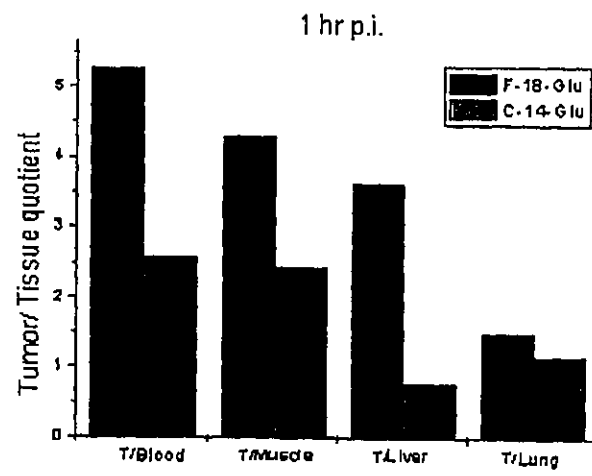
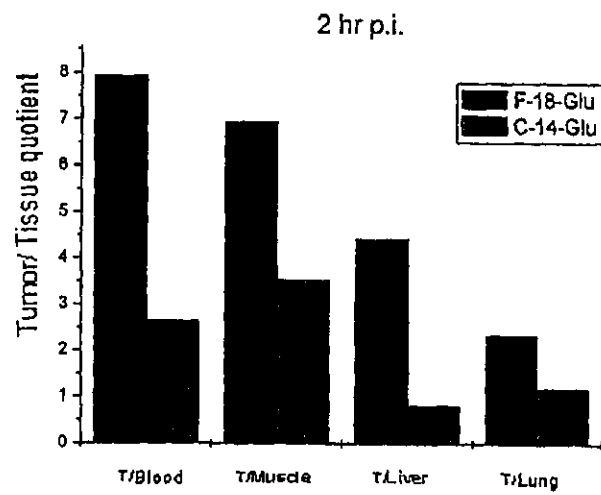


Figure 6:



Tab. 1: Tissue uptake (% injected dose per g of tissue) of [^{18}F]4-glutamic acid in the murine, embryonic teratocarcinoma F9 in NMRI nude mice after single intravenous administration.

Time:	0.25 h		1.0 h		2.0 h	
<u>%</u> <u>dose/g</u>	S.D.		S.D.		S.D.	
Spleen	2.56	0.64	0.54	0.04	0.16	0.09
Liver	3.37	0.84	0.50	0.02	0.20	0.03
Kidney	7.24	1.33	1.30	0.17	0.37	0.12
Lung	5.08	1.19	1.32	0.24	0.48	0.10
Heart	2.86	0.67	0.64	0.08	0.21	0.04
Brain	0.52	0.15	0.43	0.11	0.27	0.03
Fat	0.85	0.83	0.26	0.08	0.09	0.03
Muscle	1.72	0.10	0.70	0.03	0.42	0.50
<i>Tumor</i>	2.90	0.86	1.75	0.21	1.87	0.38
Skin	2.28	0.38	0.53	0.09	0.21	0.09
Blood	2.51	0.43	0.51	0.04	0.21	0.08
Stomach	2.56	0.62	1.26	1.29	0.33	0.16
Ovary	1.34	0.45	0.41	0.16	0.12	0.05
Uterus	2.54	0.48	0.72	0.19	0.32	0.18
Intestine	2.28	0.31	1.83	0.24	1.21	0.16

Tab.2: Tumor/tissue quotient of [^{18}F]4-glutamic acid in the murine, embryonic teratocarcinoma F9 in NMRI nude mice after single intravenous administration.

<u>Tu/Ti qu.</u>	S.D.		S.D.		S.D.	
Spleen	1.12	0.13	3.22	0.16	18	17.77
Liver	0.86	0.18	3.48	0.29	9.23	1.32
Kidney	0.4	0.07	1.38	0.35	5.22	0.53
Lung	0.57	0.04	1.34	0.15	4.09	1.41
Heart	1.01	0.15	2.73	0.24	9.22	1.9
Brain	5.6	0.93	4.2	0.59	7.06	1.96
Fat	5.85	5	7.37	2.87	23.67	9.1
Muscle	1.67	0.42	2.51	0.32	9.5	6.61
Skin	1.25	0.23	3.4	0.95	9.4	1.74
Blood	1.14	0.18	3.46	0.36	9.06	1.19
Stomach	1.12	0.09	2.45	1.56	6.85	3.86
Intestine	1.26	0.27	0.97	0.18	1.54	0.11
Ovary	2.43	1.22	5.05	2.93	17.74	7.63
Uterus	1.18	0.46	2.59	0.92	6.96	3.18

Tab. 3: Tissue uptake (% injected dose per g of tissue) of [^{18}F]4-glutamic acid in the murine, syngeneic, B16 melanoma in C57Bl6 mice after single intravenous administration.

Time:	0.25 h		1.0 h		2.0 h	
<u>%</u> <u>dose/g</u>	S.D.		S.D.		S.D.	
Spleen	4.07	0.54	0.81	0.12	0.31	0.04
Liver	3.81	0.06	0.64	0.10	0.29	0.06
Kidney	11.35	0.66	2.25	0.97	0.57	0.13
Lung	11.10	0.60	1.47	0.34	0.56	0.16
Heart	3.36	0.09	0.71	0.20	0.28	0.10
Brain	0.73	0.03	0.49	0.16	0.36	0.08
Fat	0.92	0.16	0.18	0.05	0.16	0.06
Muscle	2.19	0.75	0.53	0.13	0.24	0.16
<i>Tumor</i>	3.55	0.17	2.14	0.57	1.27	0.24
Skin	2.43	0.36	0.48	0.14	0.22	0.06
Blood	2.93	0.15	0.48	0.13	0.16	0.03
Stomach	3.41	0.28	0.59	0.20	0.30	0.05
Ovary	3.57	0.79	0.58	0.17	0.45	0.19
Uterus	7.17	3.27	0.69	0.20	0.76	0.56
Intestine	3.00	0.32	1.28	0.25	1.46	0.09

Tab. 4: Tumor/tissue quotient of [^{18}F]4-glutamic acid in the murine, syngeneic, B16 melanoma in C57Bl6 mice after single intravenous administration.

<u>Tu/Ti qu.</u>	S.D.		S.D.		S.D.	
Spleen	0.89	0.14	2.81	0.30	4.03	0.39
Liver	0.93	0.05	3.63	0.57	4.42	0.31
Kidney	0.31	0.03	1.25	0.13	2.22	0.22
Lung	0.32	0.01	1.51	0.1	2.34	0.49
Heart	1.06	0.08	3.54	0.53	5.06	2.1
Brain	4.89	0.34	4.7	1.04	3.55	0.34
Fat	3.95	0.81	14.16	1.1	8.85	3.19
Muscle	1.72	0.44	4.3	2.47	6.95	3.5
Skin	1.49	0.25	5.43	1.53	5.94	0.54
Blood	1.21	0.12	5.25	1.12	7.93	0.96
Stomach	1.05	0.12	4.02	0.96	4.24	0.63
Intestine	1.19	0.15	1.56	0.08	0.87	0.13
Ovary	1.03	0.27	4.38	0.85	3.02	0.79
Uterus	0.56	0.23	3.84	1.76	2.59	2.06

Tab. 5: Tissue uptake (% injected dose per g of tissue) of [^{14}C]5-glutamic acid in the murine, embryonic teratocarcinoma F9 in NMRI nude mice after single intravenous administration.

Time:	0.5 h		1.0 h		4.0 h	
<u>%</u> <u>dose/g</u>	S.D.		S.D.		S.D.	
Spleen	0.78	0.12	0.55	0.06	0.52	0.03
Liver	1.10	0.37	0.75	0.10	0.59	0.10
Kidney	0.95	0.05	0.56	0.03	0.36	0.04
Lung	1.51	0.11	0.83	0.09	0.59	0.04
Heart	0.87	0.08	0.49	0.09	0.18	0.01
Brain	0.11	0.01	0.08	0.01	0.05	0.01
Fat	0.08	0.02	0.04	0.01	0.06	0.04
Muscle	0.40	0.14	0.29	0.05	0.19	0.05
<i>Tumor</i>	<i>0.81</i>	<i>0.32</i>	<i>0.98</i>	<i>0.34</i>	<i>0.64</i>	<i>0.08</i>
Skin	0.77	0.24	0.55	0.08	0.41	0.13
Blood	0.31	0.03	0.28	0.02	0.19	0.04
Stomach	1.54	0.31	1.16	0.33	0.80	0.16
Ovary	0.93	0.18	0.72	0.24	0.46	0.10
Uterus	0.75	0.25	0.51	0.14	0.43	0.19
Intestine	0.81	0.32	0.93	0.31	0.68	0.14

Tab. 6: Tumor/tissue quotient of [^{14}C]5-glutamic acid in the murine, embryonic teratocarcinoma F9 in NMRI nude mice after single intravenous administration.

<u>Tu/Ti qu.</u>			
Spleen	1.08	1.76	1.23
Liver	0.74	1.31	1.09
Kidney	0.85	1.74	1.81
Lung	0.53	1.17	1.10
Heart	0.92	1.99	3.53
Brain	7.12	12.39	13.64
Fat	10.13	24.01	10.02
Muscle	2.00	3.33	3.36
Skin	1.04	1.77	1.58
Blood	2.59	3.53	3.45
Stomach	0.52	0.84	0.80
Intestine	0.99	1.05	0.94
Ovary	0.86	1.35	1.40
Uterus	1.08	1.93	1.50

Tab. 7: Tissue uptake (% injected dose per g of tissue) of [^{14}C]5-glutamic acid in the murine, syngeneic, B16 melanoma in C57Bl6 mice after single intravenous administration.

Time:	0.25 h		1.0 h		2.0 h	
<u>%</u> <u>dose/g</u>	S.D.		S.D.		S.D.	
Spleen	1.91	0.33	1.16	0.39	0.72	0.15
Liver	2.34	0.40	1.30	0.23	1.23	0.19
Kidney	2.97	0.54	0.99	0.16	0.92	0.04
Lung	3.74	0.99	0.87	0.09	0.83	0.09
Heart	3.03	0.43	0.93	0.06	0.52	0.08
Brain	0.22	0.06	0.13	0.08	0.09	0.01
Fat	0.69	0.29	0.19	0.09	0.15	0.10
Muscle	1.15	0.19	0.42	0.06	0.28	0.07
Tumor	1.23	0.14	1.03	0.13	0.98	0.22
Skin	0.86	0.16	0.32	0.15	0.28	0.19
Blood	0.56	0.06	0.40	0.10	0.37	0.06
Stomach	2.71	1.54	2.11	0.77	1.60	0.57
Ovary	2.61	0.74	1.01	0.48	1.18	0.03
Uterus	1.35	0.16	0.91	0.25	0.74	0.17
Intestine	1.81	0.58	1.47	0.60	1.38	0.32

Tab. 8: Tumor/tissue quotient of [^{14}C]5-glutamic acid in the murine, syngeneic, B16 melanoma in C57Bl6 mice after single intravenous administration.

<u>Tu/Ti qu.</u>			
Spleen	0.65	0.88	1.37
Liver	0.53	0.79	0.80
Kidney	0.42	1.03	1.07
Lung	0.33	1.18	1.18
Heart	0.41	1.11	1.88
Brain	5.59	7.66	10.59
Fat	1.80	5.36	6.64
Muscle	1.08	2.44	3.53
Skin	1.44	3.23	3.47
Blood	2.19	2.56	2.64
Stomach	0.46	0.49	0.61
Intestine	0.68	0.70	0.71
Ovary	0.47	1.01	0.83
Uterus	0.91	1.13	1.33