

Patient number	Age	Sex	Diagnosis*	Prior Radiation?	First collection	Second collection	Third Collection	Time of irradiation 1	Time of irradiation 2, if before sample 3	Time of Irradiation 3, if before Sample 3
35	53	F	NHL	No	6:30 AM	1:55 AM	6:15 AM	9:18 AM	2:16 PM	7:14 PM
51	33	M	ALL	No	5:50 AM	2:25 PM	5:30 AM	10:19 AM	2:34 PM	8:17 PM
55	31	M	AML	No	5:00 AM	1:10 PM	5:50 AM	8:52 AM	1:25 PM	6:35 PM
57	54	M	AML	No	6:30 AM	3:45 PM	5:45 AM	11:51 AM	4:34 PM	8:20 PM
66	42	M	AML	No	5:30 AM	1:10 PM	5:45 AM	9:06 AM	1:17 PM	6:26 PM
71	50	M	NHL	No	7:00 AM	1:13 PM	4:50 AM	9:18 AM	1:25 PM	6:16 PM
76	53	M	NHL	No	5:00 AM	12:30 PM	5:20 AM	9:04 AM	1:22 PM	6:52 PM
81	64	M	NHL	No	6:00 AM	1:50 PM	5:00 AM	9:12 AM	2:10 PM	6:25 PM
82	56	M	CML	No	5:00 AM	1:17 PM	6:00 AM	9:21 AM	1:38 PM	6:36 PM
84	62	F	ALL	No	5:20 AM	12:30 PM	5:00 AM	8:53 AM	1:35 PM	6:20 PM
86	43	M	AML	Yes	6:00 AM	not drawn	6:25 AM	9:22 AM	2:11 PM	6:51 PM
90	49	F	AML	No	5:45 AM	2:50 PM	6:30 AM	9:26 AM	3:41 PM	7:44 PM
91	53	M	AML	No	6:20 AM	2:40 PM	4:45 AM	10:12 AM	2:56 PM	8:22 PM
92	44	M	NHL	Yes (testes, 30 Gy)	6:10 AM	1:30 PM	6:00 AM	9:15 AM	1:45 PM	7:42 PM
94	58	F	AML	No	5:00 AM	1:45 PM	4:00 AM	9:24 AM	1:51 PM	6:05 PM
104	23	M	ALL	No	5:40 AM	1:38 PM	5:20 AM	9:20 AM	1:51 PM	6:11 PM
106	39	F	AML	No	8:30 AM	2:10 PM	8:00 AM	9:15 AM	2:41 PM	7:03 PM
111	27	F	ALL	No	6:00 AM	12:55 PM	6:00 AM	9:16 AM	1:36 PM	6:26 PM
117	26	M	ALL	No	5:00 AM	1:30 PM	5:00 AM	8:46 AM	1:54 PM	6:24 PM
118	39	M	MDS	No	5:00 AM	2:45 PM	5:00 AM	10:45 AM	3:39 PM	8:32 PM
119	46	M	AML	No	6:30 AM	2:30 PM	5:00 AM	9:33 AM	3:03 PM	7:56 PM
128	37	F	Essential Thrombocytosis	No	5:00 AM	1:30 PM	5:30 AM	9:13 AM	2:11 PM	8:13 PM
131	46	F	CML	No	6:00 AM	1:20 PM	4:45 AM	9:16 AM	1:47 PM	7:09 PM
134	21	F	ALL	No	7:10 AM	2:00 PM	5:00 AM	8:52 AM	2:04 PM	6:40 PM
136	63	M	CML	No	5:30 AM	2:30 PM	6:00 AM	8:49 AM	2:58 PM	7:46 PM
138	52	F	CML	No	5:00 AM	2:25 PM	4:40 AM	9:13 AM	2:33 PM	7:09 PM
139	39	F	CML	No	5:00 AM	3:50 PM	5:30 AM	10:38 AM	4:03 PM	8:22 PM
142	56	M	NHL	No	8:30 AM	4:15 PM	6:00 AM	12:07 PM	4:52 PM	8:50 PM

Supplementary Table 1: Information for each patient regarding sex, age, initial diagnosis, prior radiation, irradiation times, and urine collection times.

Note: Patients #51 and 86 provided only a post and pre sample, respectively

NHL	Non-Hodgkin's Lymphoma
ALL	Acute Lymphocytic Leukemia
AML	Acute Myelogenous Leukemia
CML	Chronic Myelogenous Leukemia
MDS	Myelodysplastic Syndrome

Supplementary Table 2

Potential urinary biomarkers tested but not validated through MS/MS, identity remains unknown

Marker No.	Retention Time (min)	ESI Mode	Mass (<i>m/z</i>) Found	Markers tested but not validated through MS/MS <i>NCA= potential markers not commercially available</i>	K-S <i>P</i> -value
1	4.79	pos	331.2273	11-Deoxycorticosterone, 17alpha-Hydroxyprogesterone	0.0005
2	0.79	pos	151.0611	D-Ribose	0.01
3	1.29	pos	180.0879	D-Glucosamine	0.03
4	2.20	pos	129.0653	Dihydrothymine	0.03
5	0.34	pos	152.0567	Guanine, <i>8-Hydroxyadenine (NCA)</i> , <i>2-Hydroxyadenine (NCA)</i>	0.04
6	5.00	neg	525.2716	Desmosine	1.17E-06
7	0.31	neg	179.0549	alpha-D-Glucose	0.0006
8	0.51	neg	260.0373	Phosphotyrosine	0.0007
9	0.44	neg	128.0342	5-Oxo-D-proline, <i>Pyrroline hydroxycarboxylic acid (NCA)</i>	0.001
10	4.03	neg	122.0237	Nicotinate	0.002
11	0.54	neg	103.0388	2-Hydroxybutyric acid, 3-Hydroxybutyric acid	0.003
12	0.33	neg	124.9907	Isethionic acid	0.007
13	0.33	neg	243.0606	Uridine, Pseudouridine	0.01
14	0.35	neg	191.0185	Citrate, Isocitrate	0.01
15	0.34	neg	427.0106	Inosine 5'-diphosphate	0.02
16	0.32	neg	135.0285	Threonate, <i>Erythronic acid (NCA)</i>	0.02

List of chemicals that were tested but not verified for each ion found to be statistically significant.