

Supplementary tables

Table S1: Primer for targeted NGS

Chrom.	Start	End	F-Primer	R-Primer	Gen
chr2	29432650	29432776	GGGTGAGGCAGTCTT TACTCA	CGTTGTACACTCATCTTC CTAGGGAT	AMPL403782807 ALK Exon25
chr2	29436843	29436974	ACAGGAAGAGCACAC GTCACTTTG	CTCACTGACAAGCTCCT CGT	AMPL404264901 ALK Exon24
chr2	29443565	29443688	ACTGCAGCAAAGACTG GGTTCTC	GCTCTGCAGCAAATTCA ACCAC	AMPL403021863 ALK Exon23
chr2	29443688	29443772	CCAATGCAGCGAAC AATGTTCTG	AGCTGCTGAAAATGTAA CTTTGTATCCT	AMPL403042136 ALK Exon23
chr2	29445200	29445332	GGGTGAGGGTGTCTC TCTG	TTGGCTTGCAGGACTCTGT AG	AMPL403100866 ALK Exon22
chr2	29445369	29445489	AAGGGCAGGCTCAA GAGTG	CTGTTTGAAGTCTGTCTCC TCTTGT	AMPL401739236 ALK Exon21
chr7	116411701	116411801	CTGTGGCTGAAAAAG AGAAAGCAA	CAGAACTCATGGGTTTT ATGGACTACAT	AMPL3669435999 cMET Intron 13/14
chr7	116411801	116411909	CGTCGATTCTTGTGTG CTGTCTTAT	GCATCGTAGCGAACTAA TTCACCTG	AMPL3669440693 cMET Exon14,cMET Intron13/14
chr7	116411894	116411998	CGTCTTTAACAAGCT CTTTCTTCTCTCT	CGGTAGTCTACAGATTC ATTGAAACCA	AMPL3669509335 cMET Intron13/14,cMET Exon14
chr7	116411998	116412072	CGAAGTGTAAGCCCA ACTACAGAAA	ACAACCCACTGAGGTAT ATGTATAGGT	AMPL3669511201 cMET Exon14
chr12	25380167	25380240	AATGTCAGCTTATTA TATTCAATTTAAACC CAC	GCAATGAGGGACCAGTA CATGA	AMPL387798235 KRAS Exon3B,KRAS Exon3
chr12	25380240	25380357	GAAAGCCCTCCCCAG TCC	GCAGTGTGTAATAATCCAG ACTGTGTTTC	AMPL3669413793 KRAS Exon3B,KRAS Exon3
chr12	25398183	25398304	AAAGAATGGTCCTGC ACCAAGTAA	AGGCCTGCTGAAAATGA CTGAATATAA	AMPL388868318 KRAS Exon2
chr12	25398304	25398379	CCAGCTCCAAGTACC ACAAGT	CTGGTGGAGTATTTGAT AGTGTATTAACCTT	AMPL637254406 KRAS Exon2
chr17	7577017	7577142	CGCTTCTTGTCTCTG TGCTTA	TCCTATCCTGAGTAGTG GTAATCTACTG	AMPL706844244 TP53 Exon8
chr17	7577140	7577233	GCACCTCAAAGCTGT TCCGT	CAAGGGTGGTTGGGAGT AGATG	AMPL388035064 TP53 Exon8
chr17	7577392	7577509	GGGATGTGATGAGA GGTGGAT	CCATCCTCACCATCATC ACACTG	AMPL388739660 TP53 Exon7
chr17	7577508	7577611	GGCTCCTGACCTGGA GTCTT	CATCTTGGGCCTGTGTAA TCTCC	AMPL387805586 TP53 Exon7
chr17	7578141	7578234	GCCACTGACAACCAC CCTTAA	GGAAGGAAATTTGCGTG TGGAGTA	AMPL387841166 TP53 Exon6
chr17	7578234	7578362	GTCGAAAAGTGTTTC TGTCATCCAAA	TCAGATAGCGATGGTGA GCAG	AMPL706125298 TP53 Exon6
chr17	7578310	7578425	GACCTAAGAGCAATCC AGTGAGGAA	ATCTACAAGCAGTCAC AGCAC	AMPL1206820909 TP53 Exon5
chr17	7578425	7578555	CGCCTCACAACCTCC GTCAT	CTCTGTCTCCTTCCTCTT CCTACA	AMPL707393388 TP53 Exon5
chr17	7579278	7579385	GGATACGGCCAGGC ATTGAAG	TCATCTTCTGTCCCTTCC CAGA	AMPL705681709 TP53 Exon4
chr17	7579385	7579502	CGTAGCTGCCCTGGT AGGTTT	CTGAAGACCCAGGTCCA GATG	AMPL651471124 TP53 Exon4
chr17	7579502	7579590	CTCTGGCATTCTGGG AGCTT	ACTGCTCTTTTCACCCAT CTACAG	AMPL387829477 TP53 Exon4

Table S2: specific genes and exons for targeted NGS panel: NGS_LUN3_#3

Gen	FULLNAME	Exon
	HGNC	
AKT1	AKT serine/threonine kinase 1	4
ALK	LAK receptor tyrosine kinase	21 – 25
BRAF	B-Raf proto-oncogene, serine/threonine kinase	11, 15
CTNNB1	catenin beta 1	3
DDR2	discoidin domain receptor tyrosine kinase 2	3 – 18
EGFR	Epidermal growth factor receptor	18,19, 21
EGFR	Epidermal growth factor receptor	20
ERBB2/HER2	erb-b2 receptor tyrosine kinase 2	19, 20
KRAS	KRAS proto-oncogene, GTPase	2, 3
MAP2K1	mitogen-activated protein kinase kinase 1	2
MET	MET proto-oncogene, receptor tyrosine kinase	14
NRAS	NRAS proto-oncogene, GTPase	2, 3
PIK3CA	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha	9, 20
PTEN	phosphatase and tensin homolog	1 – 8
TP53	tumor protein p53	5 – 8

Table S3: Median overall survivals in months of the radon exposed, matched non-exposed cohort

UICC stage	Radon exposed cohort	Matched non-exposed cohort
I	107.6 (n=3)	45.26(n=12)
II	84.47 (n=4)	58.84 (n=9)
III	39.97 (n=4)	34.56 (n=16)
IV	16.82 (n=4)	10.45 (n=13)

Stage-dependent median survivals of the radon-exposed cohort compared with the matched non-exposed cohort.