

Supplementary Table 1. Overall mutation results in NSCLC-BM and mNSCLC cohorts.

Results	NSCLC-BM	mNSCLC	P value
Positive	80% (n=56)	68.68% (n=68)	0.101
Negative	20% (n=14)	31.31% (n=31)	

Supplementary Table 2. Mutation analysis among NSCLC-BM and mNSCLC.

BIOMARKER	NSCLC-BM	n=70	mNSCLC	n=99
EGFR EXON 19 DEL	32.85%	23	22.22%	22
EGFR EXON 21 L858R	17.14%	12	19.19%	19
EGFR EXON 20 T790M	5.71%%	4	3.03%	3
OTHER EGFR MUTATIONS:				
EGFR EXON21 L858A	2.86%	2	3.03%	3
EGFR EXON 21 V834L	0%	0	1.01%	1
EGFR EXON 20 S768I	2.86%	2	2.02%	2
EGFR EXON 18 G709L	0%	0	1.01%	1
EGFR EXON 18 G719X	0%	0	2.02%	2
EGFR EXON 18 G719S	0%	0	2.02%	2
EGFR EXON 20 insertion	0%	0	2.02%	2
ALK mutation	8.57%	6	2.02%	2
ROS1 mutation	2.86%	2	2.02%	2
KRAS mutation	2.86%	2	8.08%	8
KRAS G12A	1.43%	1	2.02%	2
KRAS G12C	1.43%	1	2.02%	2
KRAS G13A	0%	0	1.02%	1
KRAS G12V	0%	0	1.01%	1
KRAS G16H	0%	0	2.02%	2
TP53 mutation	22.68%	16	20.20%	20
RET mutation	0%	0	1.01%	1
RB1 mutation	1.43%	1	0%	0
BRAF MUTATION	1.43%	1	2.02%	2
STK11 mutation	1.43%	1	1.01%	1
CTNNB1 mutation	1.43%	1	1.01%	1
NRAS mutation	1.43%	1	0%	0
HRAS mutation	1.43%	1	0%	0
ERBB2 mutation	1.43%	1	2.02%	2
MAPK21 mutation	1.43%	1	0%	0
CDKN2A mutation	1.43%	1	0%	0
PIK3CA mutation	1.43%	1	4.04%	4
CHEK2 mutation	1.43%	1	2.02%	2
FGFR mutation	0%	0	1.01%	1

Supplementary Table 3. Overall mutation results in Smokers and non-smokers.

Biomarker	Smokers (n=63)	Non-smokers (n=106)	P value
Positive	68.25% (n=43)	76.42% (n=81)	0.245
Negative	31.75% (n=20)	23.58% (n=25)	

Biomarker	Smokers	n=63	Non-smokers	n=106
EGFR EXON 19 DEL	19.04%	12	31.13%	33
EGFR EXON 21 L858R	19.04%	12	17.92%	19
EGFR EXON 20 T790M	7.94%	5	1.89%	2
OTHER EGFR MUTATIONS:				
EGFR EXON21 L858A	0%	0	4.72%	5
EGFR EXON 21 V834L	1.59%	1	0%	0
EGFR EXON 20 S768I	1.59%	1	2.83%	3
EGFR EXON 18 G709L	0%	0	0.94%	1
EGFR EXON 18 G719X	0%	0	1.89%	2
EGFR EXON 18 G719S	0%	0	1.89%	2
EGFR EXON 20 insertion	3.17%	2	0%	0
EGFR mutations	46.03%	29	59.43%	63
ALK mutation	4.76%	3	4.72%	5
ROS1 mutation	0%	0	3.77%	4
KRAS mutation	9.52%	6	3.77%	4
KRAS G12A	1.59%	1	1.89%	2
KRAS G12C	3.17%	2	0.94%	1
KRAS G13A	1.59%	1	0%	0
KRAS G12V	1.59%	1	0%	0
KRAS G16H	1.59%	1	0.94%	1
TP53 mutation	25.40%	16	18.87%	20
RET mutation	0	0	0.94%	1
RB1 mutation	1.59%	1	0%	0
BRAF mutation	3.17%	2	0.94%	1
STK11 mutation	3.17%	2	0%	0
CTNNB1 mutation	0%	0	1.89%	2
NRAS mutation	1.59%	1	0%	0
HRAS mutation	0%	0	0.94%	1
ERBB2 mutation	0%	0	2.83%	3
MAPK21 mutation	0%	0	0.94%	1

CDKN2A mutation	0%	0	0.94%	1
PIK3CA mutation	1.59%	1	3.77%	4
CHEK2 mutation	3.17%	2	0.94%	1
FGFR mutation	0%	0	0.94%	1

Supplementary Table 4. Mutation analysis among smokers and non-smokers.

Biomarker	Females (n=77)	Males (n=92)	P value
Positive	72.72% (n=56)	73.91% (n=68)	0.862
Negative	27.27% (n=21)	26.09% (n=24)	

Supplementary Table 5: Overall mutation results in females and males.

Biomarker	Females	n=77	Males	n=92
EGFR EXON 19 DEL	32.47%	25	21.74%	20
EGFR EXON 21 L858R	15.58%	12	20.65%	19
EGFR EXON 20 T790M	3.90%	3	4.34%	4
OTHER EGFR MUTATIONS:				
EGFR EXON21 L858A	5.19%	4	1.08%	1
EGFR EXON 21 V834L	0%	0	1.08%	1
EGFR EXON 20 S768I	3.90%	3	1.08%	1
EGFR EXON 18 G709L	1.30%	1	0%	0
EGFR EXON 18 G719X	1.30%	1	1.08%	1
EGFR EXON 18 G719S	2.60%	2	0%	0
EGFR EXON 20 insertion	0%	0	2.17%	2
EGFR mutations	66.23%	51	53.26%	49
ALK mutation	1.30%	1	7.61%	7
ROS1 mutation	3.90%	3	1.08%	1
KRAS mutation	3.90%	3	7.61%	7
KRAS G12A	1.30%	1	2.17%	2
KRAS G12C	1.30%	1	2.17%	2
KRAS G13A	0%	0	1.08%	1
KRAS G12V	0%	0	1.08%	1
KRAS G16H	1.30%	1	1.08%	1
TP53 mutation	19.48%	15	22.83%	21
RET mutation	0%	0	1.08%	1
RB1 mutation	0%	0	1.08%	1
BRAF MUTATION	0%	0	3.26%	3
STK11 mutation	0%	0	2.17%	2
CTNNB1 mutation	2.60%	2	0%	0
NRAS mutation	0%	0	1.08%	1
HRAS mutation	1.30%	1	0%	0
ERBB2 mutation	2.60%	2	1.08%	1
MAPK21 mutation	0%	0	1.08%	1

CDKN2A mutation	1.30%	1	0%	0
PIK3CA mutation	6.49%	5	0%	0
CHEK2 mutation	1.30%	1	2.17%	2
FGFR mutation	0%	0	1.08%	1

Supplementary Table 6. Mutation analysis among females and males.