

Table SI. Histological types, staging, treatment status and other information for the 68 paired patient samples.

Sample ID	Age	Sex	Subtype	Differentiation Status	TNM Classification	Drug treatment	Follow-up
6249-PT	67	M	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
0327-PT	59	F	Adenocarcinoma	Moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
9252-PT	59	F	Adenocarcinoma	Moderately differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
9117-PT	72	F	Adenocarcinoma	well differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	No recurrence
1352-PT	54	F	Adenocarcinoma	poorly differentiated	T _{1b} N ₂ M ₀ Stage IIIA	Untreated	No recurrence
2911-PT	70	M	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	Lost to follow-up
1441-PT	54	M	Squamous cell carcinoma	Moderately differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
1331-PT	68	F	Adenocarcinoma	Moderately differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
5853-PT	76	F	Adenocarcinoma	Moderately differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
5490-PT	60	M	Large Cell Lung Cancer	poorly differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	No recurrence
2624-PT	65	M	Adenocarcinoma	moderately differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
6252-PT	71	F	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
5252-PT	58	M	Adenocarcinoma	well differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
5279-PT	63	F	Adenocarcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
3793-PT	69	M	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
3890-PT	55	F	Squamous cell carcinoma	moderately differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	Recurrence
4943-PT	77	M	Adenocarcinoma	poorly differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
8468-PT	48	F	Adenocarcinoma	well differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
3833-	62	M	Squamous	moderately	T _{1b} N ₀ M ₀	Untreated	No

PT			cell carcinoma	differentiated	Stage IA ₂		recurrence
7389-PT	73	F	Adenocarcinoma	well differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
8473-PT	56	M	Adenocarcinoma	moderately differentiated	T ₄ N ₂ M ₀ Stage IIIB	Untreated	No recurrence
3983-PT	80	F	Adenocarcinoma	poorly differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	Recurrence
2798-PT	53	M	Adenocarcinoma	moderately differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	Lost to follow-up
5622-PT	66	F	Adenocarcinoma	well differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
7528-PT	61	M	Adenocarcinoma	poorly differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
6188-PT	74	F	Adenocarcinoma	moderately differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	No recurrence
2772-PT	52	M	Adenocarcinoma	moderately differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
2892-PT	68	F	Squamous cell carcinoma	well differentiated	T3N ₀ M ₀ Stage IIB	Untreated	No recurrence
4896-PT	79	M	Adenocarcinoma	poorly differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
1793-PT	50	F	Adenocarcinoma	moderately differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	Recurrence
9035-PT	64	M	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
8937-PT	57	F	Adenocarcinoma	well differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	Lost to follow-up
1832-PT	81	M	Adenocarcinoma	moderately differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
5803-PT	49	F	Adenocarcinoma	well differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
8325-PT	75	M	Squamous cell carcinoma	moderately differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	No recurrence
1067-PT	60	F	Adenocarcinoma	moderately differentiated	T3N ₀ M ₀ Stage IIB	Untreated	No recurrence
1827-PT	83	M	Adenocarcinoma	poorly differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	Recurrence
4902-PT	47	F	Adenocarcinoma	well differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	No recurrence
6725-PT	70	M	Large Cell Lung	moderately differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence

			Cancer				
9037-PT	55	F	Adenocarcinoma	well differentiated	T ₄ N ₂ M ₀ Stage IIIB	Untreated	No recurrence
2683-PT	78	M	Adenocarcinoma	poorly differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	No recurrence
3683-PT	63	F	Squamous cell carcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
6893-PT	51	M	Adenocarcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
8054-PT	69	F	Adenocarcinoma	well differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
9840-PT	82	M	Large Cell Lung Cancer	poorly differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
7502-PT	46	F	Adenocarcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
1462-PT	73	M	Squamous cell carcinoma	well differentiated	T ₄ N ₂ M ₀ Stage IIIB	Untreated	No recurrence
7028-PT	58	F	Large Cell Lung Cancer	poorly differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	Recurrence
7692-PT	65	M	Adenocarcinoma	moderately differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	Lost to follow-up
5662-PT	77	F	Squamous cell carcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
6383-PT	54	M	Adenocarcinoma	well differentiated	T ₃ N ₀ M ₀ Stage IIB	Untreated	No recurrence
3783-PT	80	F	Adenocarcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
7589-PT	62	M	Adenocarcinoma	moderately differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	No recurrence
3627-PT	71	F	Large Cell Lung Cancer	well differentiated	T _{1b} N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
7389-PT	49	M	Squamous cell carcinoma	poorly differentiated	T _{2a} N ₀ M ₀ Stage IB	Untreated	No recurrence
1352-PT	66	F	Adenocarcinoma	moderately differentiated	T _{1c} N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
1547-PT	75	M	Adenocarcinoma	well differentiated	T _{2a} N ₂ M ₀ Stage IIIA	Untreated	No recurrence

4672-PT	59	F	Adenocarcinoma	moderately differentiated	T2 _a N ₀ M ₀ Stage IB	Untreated	No recurrence
8389-PT	84	M	Adenocarcinoma	poorly differentiated	T1 _b N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
6832-PT	53	F	Squamous cell carcinoma	well differentiated	T ₄ N ₂ M ₀ Stage IIIB	Untreated	Recurrence
6936-PT	68	M	Adenocarcinoma	moderately differentiated	T2 _a N ₀ M ₀ Stage IB	Untreated	No recurrence
8792-PT	76	F	Large Cell Lung Cancer	poorly differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
7672-PT	50	M	Adenocarcinoma	moderately differentiated	T1 _c N ₀ M ₀ Stage IA ₃	Untreated	No recurrence
7622-PT	81	F	Adenocarcinoma	well differentiated	T1 _b N ₀ M ₀ Stage IA ₂	Untreated	No recurrence
8402-PT	73	F	Adenocarcinoma	poorly differentiated	T2 _a N ₂ M ₀ Stage IIIA	Untreated	No recurrence
6036-PT	56	M	Adenocarcinoma	moderately differentiated	T4N2M0 Stage IIIB	Untreated	No recurrence
7792-PT	77	F	Adenocarcinoma	well differentiated	T1 _b N0M0 Stage IA2	Untreated	No recurrence
6018-PT	68	F	Adenocarcinoma	poorly differentiated	T2 _a N0M0 Stage IB	Untreated	No recurrence

Table SII. Primer sequences.

Primer Designation	Primer Sequence (5'→3')
ARG-1 forward	GTGGAAACTTGCATGGACAAC
ARG-1 reverse	AATCCTGGCACATCGGGAATC
IRF4 forward	GCTGATCGACCAGATCGACAG
IRF4 reverse	CGGTTGTAGTCCTGCTTGC
IRF5 forward	GGGCTTCAATGGGTCAACG
IRF5 reverse	GCCTTCGGTGTATTTCCCTG
TNF- α forward	CCTCTCTCTAATCAGCCCTCTG
TNF- α reverse	GAGGACCTGGGAGTAGATGAG
GAPDH forward	GGAGCGAGATCCCTCCAAAAT
GAPDH reverse	GGCTGTTGTCATACTTCTCATGG
miR-491-3p forward	TGCGGCTTATGCAAGATTCCCTTCT
miR-491-3p reverse	CCAGTGCAGGGTCCGAGGT
miR-20a forward	TGCGGACTGCATTATGAGCACTTAA
miR-20a reverse	CCAGTGCAGGGTCCGAGGT
miR-21 forward	TGCGGCAACACCAGTCGATGGGCTG
miR-21 reverse	CCAGTGCAGGGTCCGAGGT
miR-454 forward	TGCGGTAGTGCAATATTGCTTATAG
miR-454 reverse	CCAGTGCAGGGTCCGAGGT
miR-140-3p forward	TGCGGTACCACAGGGTAGAACCACG
miR-140-3p reverse	CCAGTGCAGGGTCCGAGGT
miR-221 forward	TGCGGAGCTACATTGTCTGCTGGGT
miR-221 reverse	CCAGTGCAGGGTCCGAGGT
U6 forward	CTCGCTTCGGCAGCACA
U6 reverse	AACGCTTCACGAATTTGCGT
UBE2D3 forward	GGCATTCTGGAAGCTCCCTT
UBE2D3 reverse	GGTCACGGGCCAAATCACTA
AZI2 forward	TTCCGTGGGACGAGAACAAG
AZI2 reverse	TCACCTGCTGAGTTTCCACC
PTPRM forward	TACCCAGACCCATTTGTGCC
PTPRM reverse	ATGTGCTGAAGGAGGTCTGC
antagomiR-NC	ACAGUAACUUGCGUGAUUAUUG
antagomiR-491-3p	GUAGAAGGGAAUCUUGCAUAAG