

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Tsao M-S, Sakurada A, Cutz J-C, et al. Erlotinib in lung cancer — molecular and clinical predictors of outcome. *N Engl J Med* 2005;353:133-44.

Supplemental information for on-line publication only

Supplemental Table 1. Summary of Sample Collection and Laboratory Testing by Treatment Arm

	Erlotinib	Control	Total
Number of patients in trial	488	243	731 (100%)
Number of patients who consented to EGFR testing	313	159	472 (65%)
Number of patients with usable slides for IHC	242	133	325 (44%)
Number of patients with usable tissue for sequencing or FISH	148	78	226 (31%)
Number of patients with successful IHC analysis	210	115	325 (44%)
Number of patients with successful FISH analysis	77	48	125 (17%)
Number of patients with successful molecular sequencing	114	63	177 (24%)

IHC: immunohistochemistry; FISH: fluorescence in-situ hybridization

Supplemental Table 2

A Detailed Summary of Mutations Found in 40 Tumors, Correlated with the Results of FISH Analyses.

Specimen Number	Exon (del/mut)	Mutation	Nucleotide Change ¹	Mutation ²	Nucleotide Change	Gene Copy Change
6359	18mut	* L688P	18(2063 T>C)			High Trisomy
4979	18mut	* P694L	18(2081 C>T)			Unknown
5326	18mut	* P694S	18(2080 C>T)			Unknown
4992	19del	delE746_A750	19(2235_2249del)			Low Polysomy
5349	19del	delE746_A750	19(2236_2250del)			Low Polysomy
3588	19del	delE746_A750	19(2235_2249del)			Low Polysomy
3633	19del	delE746_P753insLS	19(2236_2257del + "CTCT" ins)			Unknown
3733	19del	delE746_S752insV	19(2237_2255del + "T" ins)			Unknown
4625	19del	delE746_S752insV	19(2237_2255del + "T" ins)			Low Polysomy
5357	19del	delE746_S752insV	19(2237_2255del + "T" ins)			High Trisomy
5550	19del	delE746_S752insV	19(2237_2501del + "T" ins)			Unknown
4583	19del	delL747_A750insP	19(2238_2248del + "GC"ins)			Amplification
3236	19del	delL747_T751insP	19(2239_2251del + "C" ins)			High Trisomy
3696	19del; 19mut	delE746_A750	19(2235_2249del)	* L730F	19(2188 C>T)	High Trisomy
4990	19del; 19mut	delE746_S752insV	19(2237_2255del + "T" ins)	* P733L	19(2198 C>T)	Unknown
4577	19del; 21mut	delE746_S752insV	19(2237_2255del + "T" ins)	L858R	21(2573 T>G)	High Trisomy
5356	19mut	* G735S	19(2203 G>A)			Unknown
4624	19mut	* V742A	19(2225 T>C)			Low Polysomy
3615	19mut	* E746K	19(2236 G>A)			Unknown
5330	19mut; 21mut	* T751I	19(2252 C>T)	* H850N	21(2548 C>A)	Diploid
3638	19mut	* S752Y	19(2255 C>A)			High Trisomy

3695	19mut	* D761N	19(2281 G>A)			Unknown
3595	20mut; 21mut	* S784F	10(2351 C>T)	L858R	21(2573 T>G)	Diploid
5313	20mut	* L792P	20(2375 T>C)			Low Trisomy
6374	20mut	* L792P	20(2375 T>C)			Low Trisomy
5347	20mut	* L798F	20(2392 C>T)			High Trisomy
4515	20mut	* G810S	20(2428 G>A)			Low Trisomy
4988	21mut	* N826S	21(2477 A>G)			Unknown
3617	21mut	* T847I	21(2540 C>T)			Unknown
6367	21mut	* V851A	21(2552 T>C)			Unknown
3584	21mut	* I853T	21(2558 T>C)			Unknown
4140	21mut	L858R	21(2573 T>G)			High Trisomy
4163	21mut	L858R	21(2573 T>G)			Unknown
4991	21mut	L858R	21(2573 T>G)			Low Trisomy
5315	21mut	L858R	21(2573 T>G)			High Trisomy
5346	21mut	L858R	21(2573 T>G)			Amplification
6360	21mut	L858R	21(2573 T>G)			Unknown
5325	21mut	* A864T	21(2590 G>A)			Unknown
4538	21mut	* E866K	21(2596G>A)			Diploid
3791	21mut	* G873E	21(2618 G>A)			Unknown

¹ The sequences are referenced against NM_005228, with the first nucleotide (247) of the translation initiation codon as origin.

² Unknown gene copy number is caused by failure of FISH studies.

* Novel mutation.

Supplemental Figure: A comparison of survival for patients with (A) exon 19 deletions and exon 21 L858R mutations, and (B) novel mutations treated with erlotinib and placebo.

