Table S1 Search strategy

Database name and code number of keywords	Keywords
PubMed	
#1	"Carcinoma, Non-Small-Cell Lung"[MeSH] OR "Adenocarcinoma of Lung"[MeSH] OR non-small-cell lung carcinoma*[tw] OR nonsmall cell lung cancer*[tw] OR NSCLC[tw] OR lung squamous carcinoma*[tw] OR squamous cell lung carcinoma*[tw] OR lung squamous cell carcinoma*[tw] OR pulmonary squamous carcinoma*[tw] OR pulmonary squamous cell carcinoma*[tw] OR lung adenocarcinoma*[tw] OR pulmonary adenocarcinoma*[tw] OR large cell lung cancer*[tw]
#2	"alectinib"[Supplementary Concept] OR alectinib[tw] OR "af 802"[tw] OR alecensa[tw] OR alecensaro[tw] OR "ch 5424802"[tw] OR ch5424802[tw] OR ro5424802[tw] OR "brigatinib"[Supplementary Concept] OR brigatinib[tw] OR "ap 26113"[tw] OR ap26113[tw] OR alunbrig[tw] OR "ensartinib"[Supplementary Concept] OR ensartinib[tw] OR "x 396"[tw] OR "lorlatinib"[Supplementary Concept] OR lorlatinib[tw] OR loratinib[tw] OR "pf 06463922"[tw] OR lorbrena[tw] OR envonalkib[tw] OR "tq-b3139"[tw] OR Iruplinalkib[tw] OR wx-0593[tw] OR "ceritinib"[Supplementary Concept] OR zykadia[tw] OR ldk378[tw]
#3	("controlled clinical trial"[pt] OR "Controlled Clinical Trials as Topic"[MeSH] OR "Random Allocation"[MeSH] OR "Double-Blind Method"[MeSH] OR "single-blind method"[MeSH] OR "Control Groups"[MeSH] OR "cross-over studies"[MeSH] OR random*[tiab] OR placebo[tiab] OR trial[tiab] OR groups[tiab] OR crossover[tiab] OR cross-over[tiab]) NOT ("Animals"[Mesh] NOT ("Humans"[MeSH] AND "Animals"[MeSH]))
#4	#1 AND #2 AND #3
Embase	
#1	'non small cell lung cancer'/exp OR 'lung adenocarcinoma'/exp OR 'non small cell lung cancer':ti,ab,kw OR nsclc:ti,ab,kw OR 'squamous cell lung carcinoma':ti,ab,kw OR 'lung squamous cell carcinoma*':ti,ab,kw OR 'lung squamous carcinoma cell line':ti,ab,kw OR 'pulmonary squamous cell carcinoma*':ti,ab,kw OR 'lung adenocarcinoma':ti,ab,kw OR 'pulmonary adenocarcinoma*':ti,ab,kw OR 'large cell lung carcinoma':ti,ab,kw
#2	'alectinib'/exp OR alectinib:ti,ab,kw OR ro5424802:ti,ab,kw OR 'brigatinib'/exp OR brigatinib:ti,ab,kw OR ap26113:ti,ab,kw OR 'ensartinib'/exp OR ensartinib:ti,ab,kw OR 'x 396':ti,ab,kw OR 'lorlatinib'/exp OR lorlatinib:ti,ab,kw OR loratinib:ti,ab,kw OR 'pf 06463922':ti,ab,kw OR envonalkib:ti,ab,kw OR iruplinalkib:ti,ab,kw OR 'wx 0593':ti,ab,kw OR 'ceritinib'/exp OR ceritinib:ti,ab,kw
#3	('controlled clinical trial'/exp OR 'controlled clinical trial (topic)'/exp OR 'double blind procedure'/de OR 'control group'/de OR 'crossover procedure'/de OR 'single blind procedure'/de OR 'triple blind procedure'/de OR 'placebo'/de OR 'randomization'/exp OR random*:ab,ti,kw OR trial:ab,ti,kw OR groups:ab,ti,kw OR placebo*:ab,ti,kw OR crossover:ab,ti,kw OR 'cross-over':ab,ti,kw) NOT (('nonhuman'/exp OR 'animal'/exp) NOT 'human'/exp
#4	#1 AND #2 AND #3
Cochrane	
#1	MeSH descriptor: [Carcinoma, Non-Small-Cell Lung] explode all trees
#2	MeSH descriptor: [Adenocarcinoma of Lung] explode all trees
#3	non-small-cell lung carcinoma* OR nonsmall cell lung cancer* OR NSCLC OR lung squamous carcinoma* OR squamous cell lung carcinoma* OR lung squamous cell carcinoma* OR pulmonary squamous carcinoma* OR pulmonary squamous cell carcinoma* OR lung adenocarcinoma* OR pulmonary adenocarcinoma* OR large cell lung cancer*
#4	#1 OR #2 OR #3
#5	alectinib OR "af 802" OR alecensa OR alecensaro OR "ch 5424802" OR ch5424802 OR ro5424802 OR brigatinib OR "ap 26113" OR ap26113 OR alunbrig OR ensartinib OR "x 396" OR lorlatinib OR loratinib OR "pf 06463922" OR lorbrena OR envonalkib OR "tq-b3139" OR Iruplinalkib OR wx-0593 OR zykadia OR ldk378
#6	#4 AND #5

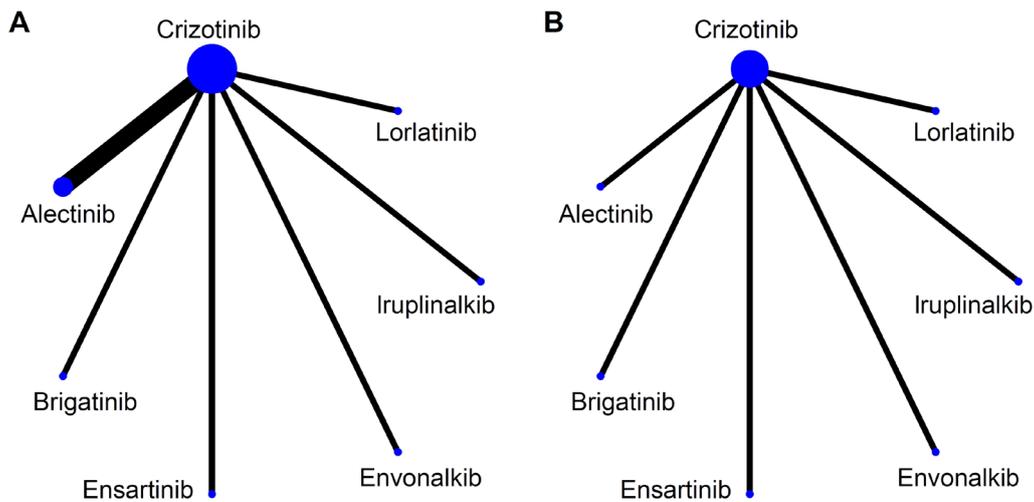**Figure S1** Risks of bias assessed using the Cochrane Risk of Bias 2 tool.

Figure S2 Network diagram of treatments. (A) Comparison on IRC-assessed PFS; (B) comparison on IRC-assessed ORR and DCR. IRC, independent review committee; PFS, progressive-free survival; ORR, objective response rate; DCR, disease control rate.