

Table S1 The primer sequences

Symbol	Forward primer	Reverse primer
FASN	CCATCTACAACATCGACACCAG	CTTCCACACTATGCTCAGGTAG
ACACA	TACCTTCTTCTACTGGCGGCTGAG	GCCTTCACTGTTCCCTTCCACTTCC
HADHA	CTGTGTTTGAGGACCTTAGTCT	GTCTTTGGAAGTTTTCTCGGTC
PPT1	GGTGGAGAAGAAAATACCTGGA	CTGACACACTGTTGTTACTTGG
ACADS	CAGTTACACACCATCTACCAGT	GCTGGGAAGAGATGTTCCATTAT
ACOX1	CACAAGTAAACCAGCGTGATAA	GTTCTTAGCCCACTCAAACAAG
ACAA1	TGGAAATATTACTTCGCGCTTG	AGCCACATTCTCAGAGGTTATC
SCP2	GGAGCTGAGAATTCAAGAGACT	AGTCACCAAAAACATAGCCAAC
HACD3	GATGTATTTCTGCCAGATGCTG	TTGTTCTGCATTTCTTCCATGG
ACSL3	CGTGTCTTCAAACCATCTACC	TCTTGTCTTGACTCGGAGAAAA
HADHB	TTCCATAAGACCTCTGAGCTG	TCATGTGGCATCAGGTCTTTAT
ACAA2	GCTCTCACGATTAATAGGCTCT	ACATTTCTGACACAGTAGGGAG
ACADVL	CCCGCCAAGAATGACGCTCTG	GCCCACGATCTCCACCAAACG
HSD17B8	ACTCTGTCCCTCCCAGGGTTCATTG	GCGACCACATCTGCCACATCC
ACADM	GCCAGAGAGGAAATCATCCAGTG	CCAAGTCCAAGACCTCCACAGTTC
ACSF3	CCAGGATTTCTTGCCTGCAGTTTG	GCCCGTGATGTTCTTCCACTTCTC
ACAT1	GCTCCTGTATATGCTGCATCTA	TGTTTGCTAGTACAACCAGACT
ACTB	CATGTACGTTGCTATCCAGGC	CTCCTTAATGTCACGCACGAT

Table S2 Lipidomics analysis

Name	Fatty acids	Unit	Fold change	P-value	Anlo-1	Anlo-2	Anlo-3	Control-1	Control-2	Control-3
C21:0	Methyl heneicosanoate	µg/10 ⁷	0.013272	1.02E-05	0.00183	0.001633	0.001571	0.134917	0.12483	0.119546
C18:3N3	Methyl linolenate	µg/10 ⁷	0.006358	3.93E-05	0.003773	0.003391	0.003103	0.590954	0.52371	0.500263
C20:0	Methyl arachidate	µg/10 ⁷	0.007866	0.000128	0.016951	0.015877	0.014418	2.103415	2.17001	1.732654
C20:2N6	cis-11,14-Eicosadienoic acid methyl ester	µg/10 ⁷	0.01011	0.000189	0.037276	0.033379	0.031617	3.546054	3.69547	2.87465
C22:1N9	Methyl erucate	µg/10 ⁷	0.010498	0.00024	0.032145	0.030801	0.02844	3.128542	3.13672	2.440216
C22:5N3	Methyl docosapentaenoate	µg/10 ⁷	0.011894	0.000418	0.238373	0.23119	0.205216	22.16829	18.29826	16.26522
C15:1N5	Methyl cis-10-pentadecenoate	µg/10 ⁷	0.010865	0.000578	0.005859	0.006139	0.006266	0.461593	0.654838	0.564582
C24:1N9	Methyl cis-15-tetracosenoate	µg/10 ⁷	0.010606	0.000609	0.077901	0.071406	0.066535	7.642505	7.279086	5.429239
C18:1N9	Methyl oleate	µg/10 ⁷	0.009058	0.000649	1.268814	1.240426	1.108427	144.1491	149.3471	105.9111
C15:0	Methyl pentadecanoate	µg/10 ⁷	0.010541	0.0012	0.025363	0.025404	0.023501	2.538523	2.715308	1.791688
C20:5N3	cis-5,8,11,14,17-Eicosapentaenoic acid methyl ester	µg/10 ⁷	0.009124	0.001216	0.099781	0.08876	0.084975	10.81182	11.55493	7.609683
C6:0	Methyl hexanoate	µg/10 ⁷	0.005797	0.001337	3.32E-05	2.53E-05	4.35E-05	0.005339	0.007308	0.004946
C22:0	Methyl behenate	µg/10 ⁷	0.008722	0.001622	0.004813	0.004163	0.003925	0.523495	0.586252	0.369322
C16:0	Methyl palmitate	µg/10 ⁷	0.008801	0.001738	2.319649	2.2645	2.027522	291.7051	275.0945	184.436
C20:3N6	cis-8,11,14-Eicosatrienoic acid methyl ester	µg/10 ⁷	0.007206	0.001783	0.057485	0.051038	0.047614	9.089898	6.741428	5.836345
C17:0	Methyl heptadecanoate	µg/10 ⁷	0.011837	0.001909	0.028852	0.02756	0.024696	2.563282	2.625303	1.663527
C23:0	Methyl tricosanoate	µg/10 ⁷	0.014419	0.001955	0.001067	0.00091	0.000979	0.07049	0.083341	0.051221
C18:2N6	Methyl linoleate	µg/10 ⁷	0.010928	0.00246	0.372584	0.339095	0.317124	39.28767	31.41328	23.44665
C13:0	Methyl tridecanoate	µg/10 ⁷	0.011211	0.002492	0.000268	0.000304	0.000217	0.022058	0.02994	0.018314
C24:0	Methyl tetracosanoate	µg/10 ⁷	0.01096	0.002603	0.008365	0.007695	0.007319	0.739503	0.877321	0.516288
C22:2N6	cis-13,16-Docosadienoic acid methyl ester	µg/10 ⁷	0.012537	0.002711	0.00987	0.007862	0.008618	0.889772	0.683405	0.528588
C20:1N9	cis-11-Eicosenoic acid methyl ester	µg/10 ⁷	0.011047	0.002788	0.119863	0.112642	0.105008	12.48564	10.79091	7.274951
C18:2TTN6	Methyl linolelaidate	µg/10 ⁷	0.004162	0.003124	0.029057	0.027552	0.023623	6.843269	7.919646	4.513267
C12:0	Methyl dodecanoate	µg/10 ⁷	0.010604	0.003271	0.002159	0.001818	0.001589	0.143519	0.229848	0.15153
C22:4N6	Methyl docosatetraenoate	µg/10 ⁷	0.015871	0.003314	0.054385	0.055919	0.047105	4.055834	3.553755	2.308522
C18:1TN9	Methyl elaidate	µg/10 ⁷	0.00998	0.003378	3.162416	3.049903	2.806728	375.1158	317.0366	211.5903
C18:3N6	Methyl γ-linolenate	µg/10 ⁷	0.008169	0.003575	0.001372	0.001292	0.001114	0.198304	0.1522	0.112046
C18:0	Methyl stearate	µg/10 ⁷	0.010323	0.004111	1.104967	0.995756	0.881745	114.0606	110.7646	64.09216
C8:0	Methyl octanoate	µg/10 ⁷	0.019009	0.004233	3.23E-05	2.44E-05	0.000104	0.003022	0.003521	0.001924
C20:4N6	Methyl arachidonate	µg/10 ⁷	0.009998	0.004304	0.582484	0.530831	0.487059	68.53994	54.31482	37.21525
C14:0	Methyl myristate	µg/10 ⁷	0.010251	0.004349	0.133369	0.128403	0.105959	9.502667	15.99569	10.37475
C17:1N7	Methyl cis-10-heptadecenoate	µg/10 ⁷	0.00956	0.005823	0.080126	0.077949	0.066895	10.17525	8.166716	5.190935
C16:1N7	Methyl palmitoleate	µg/10 ⁷	0.008701	0.006257	0.507634	0.50775	0.448202	73.16489	58.28312	36.75849
C20:3N3	cis-11,14,17-Eicosatrienoic acid methyl ester	µg/10 ⁷	0.009961	0.006346	0.00691	0.006332	0.006317	0.867651	0.656732	0.439181
C22:5N6	Methyl docosapentaenoate	µg/10 ⁷	0.00915	0.006487	0.004523	0.003945	0.003844	0.594033	0.453138	0.298442
C14:1N5	Methyl myristoleate	µg/10 ⁷	0.009605	0.007908	0.0017	0.001587	0.001404	0.202296	0.18827	0.097803
C11:0	Methyl undecanoate	µg/10 ⁷	0.010467	0.00856	1.35E-05	2.24E-05	4.1E-05	0.001646	0.002326	0.003376
C10:0	Methyl decanoate	µg/10 ⁷	0.006603	0.03394	3.7E-05	3.1E-05	6.84E-05	0.004992	0.011189	0.004467
C4:0	Methyl butyrate	µg/10 ⁷								
C22:6N3	cis-4,7,10,13,16,19-Docosahexaenoic acid methyl ester	µg/10 ⁷								
Total_SFA	/	µg/10 ⁷	0.00928	0.002038	3.647767	3.474127	3.093699	424.1226	411.3213	265.3317
Total_MUFA	/	µg/10 ⁷	0.009631	0.002344	5.256459	5.098602	4.637905	626.5257	554.8834	375.2577
Total_PUFA	/	µg/10 ⁷	0.010127	0.002068	1.497874	1.380585	1.26733	167.4835	139.9608	101.9481
Total_N3	/	µg/10 ⁷	0.010834	0.000454	0.348838	0.329673	0.299612	34.43871	31.03364	24.81435
Total_N6	/	µg/10 ⁷	0.009927	0.002883	1.149036	1.050912	0.967719	133.0448	108.9271	77.13376

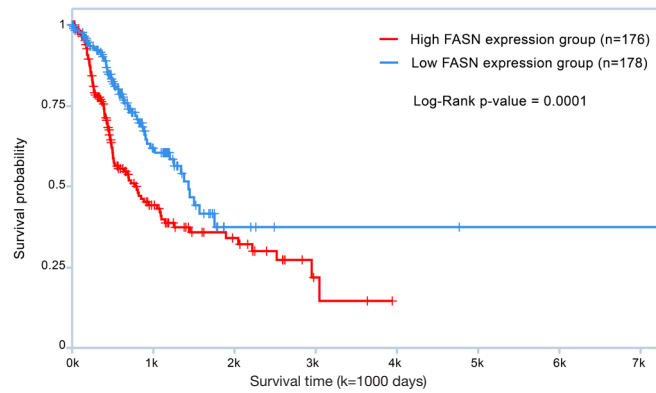


Figure S1 The association between FASN expression and progression free interval in lung adenocarcinoma patients using the TCPA database. Log-Rank test was used. FASN, fatty acid synthase; TCPA, The Cancer Proteome Atlas.

Table S3 KEGG enrichment analysis of mouse (mmu) downregulated proteins by anlotinib in A549 xenografts

Ontology	ID	Description	GeneRatio	BgRatio	pvalue	p.adjust	qvalue
Mmu (down)							
KEGG	mmu05132	Salmonella infection	23/262	253/8,910	1.39e-06	3.01e-04	2.18e-04
KEGG	mmu03040	Spliceosome	16/262	136/8,910	2.19e-06	3.01e-04	2.18e-04
KEGG	mmu05145	Toxoplasmosis	13/262	110/8,910	1.90e-05	0.002	0.001
KEGG	mmu05161	Hepatitis B	16/262	163/8,910	2.28e-05	0.002	0.001
KEGG	mmu05014	Amyotrophic lateral sclerosis	25/262	370/8,910	8.59e-05	0.005	0.003
Mmu (up)							
KEGG	mmu03013	RNA transport	17/253	182/8,910	1.54e-05	0.002	0.002
KEGG	mmu05014	Amyotrophic lateral sclerosis	26/253	370/8,910	1.72e-05	0.002	0.002
KEGG	mmu03040	Spliceosome	14/253	136/8,910	2.99e-05	0.003	0.003

KEGG, Kyoto Encyclopedia of Genes and Genomes.