

**Supplementary Figure S1: Neutrophil isolation and degranulation.** A A representative cytospin stained with May-Grünwald and Giemsa. **B** Characterization of neutrophil degranulation by increased protease activity in neutrophil degranulation medium (NDM) as compared to non-degranulated neutrophil medium (NM) on 10% Zymogram gels. One representative gel out of 10 is shown. **C** Increased levels of myeloperoxidase (MPO, pg/ml) in NDM compared to NM as measured by ELISA. Data are shown from three representative experiments out of 30.



Supplementary Figure S2: Representative analysis of the viability of H1299 (A) and H1563 (B) cells in different media. H1299 and H1563 cells were cultured for 48 h in the presence or absence of 20  $\mu$ g/ml cisplatin in basal medium. PE Annexin V apoptosis detection assay was used for flow cytometry to measure cell death. Unstained cells in the bottom left quadrant were classified as "living".



Supplementary Figure S3: Lipid droplet formation in six lung cancer cell lines after treatment with 20µg/ml cisplatin. Cells were stained for lipid droplets with Oil red O and for nuclear components with hematoxylin after culture for 48 h in basal medium. Images were taken at 1000-fold magnification using 100x oil immersion objective (Leica). One representative experiment out of three independent experiments is shown.



**Supplementary Figure S4**: *SREBF1* expression in ADC and SQCC and overall survival for SQCC. A Relative *SREBF1* expression in tumor and adjacent lung tissue. Gene expression was normalized with two housekeeping genes (*ESD* and *RPS18*). Please note that higher values mean a lower gene expression. **B** Kaplan-Meier survival curves of *SREBF1* tumor expression in SQCC. Cut-off for separation of the groups was the same as used in Fig. 5C. SQCC = squamous cell carcinoma,  $\emptyset = \text{median}$ , \*p < 0.05, \*\*p < 0.005

Supplementary Table S1. Cohort description				
Parameter	n	(%)		
Median Age	65 (38–88)			
Total	292	100		
Male	205	70		
Female	87	30		
Histology				
Adeno	171	59		
Squamous	121	41		
Therapy				
OP	179	63		
OP/RT	7	2		
OP/ChT	76	26		
OP/RT/ChT	30	10		
Smoking status				
Non-Smoker	26	9		
Ex-Smoker	162	55		
Smoker	102	35		
No data	2	1		
Pathological Stage				
(7 <sup>th</sup> TNM edition)				
IA	33	11		
IB	108	37		
IIA	21	7		
IIB	62	21		
IIIA	63	21		
IIIB	5	2		
ECOG				
0	251	86		
1	39	13		
2	2	1		

OP: operation, RT: radiotherapy, ChT: chemotherapy, ECOG: Eastern Cooperative Oncology Group Performance Status Scale

Supplementary Table S2. Cox Regression Analyzes			
Univariate Analysis			
(Gene Expression,			
overall survival)			
Variable (high vs. low)	Significance	Hazard Ratio (95 % CI)	
SREBF1 (ADC)	0.039	1.675 (1.20-2.751)	
SREBF1 (SQCC)	0.015	2.305 (1.15-4.619)	
Multivariate Analysis			
(SQCC)			
(Gene Expression,			
Overall Survival)			
Variable	Significance	Hazard Ratio (95 % CI)	
SREBF1 (tumor, high vs. low)	0.012	2.571 (1.236-5.348)	
Age	0.007	1.05 (1.014-1.088)	
Gender (female vs. male)	0.025	0.261 (0.08-0.847)	
pathological stage (7 <sup>th</sup> edition)	0.097	1.369 (0.944-1.984)	
Smoking status	0.265	1.371 (0.787-2.389)	
ECOG	0.569	1.251 (0.579-2.7)	
Multivariate Analysis			
(ADC)			
(Gene Expression,			
Overall Survival)			
Variable	Significance	Hazard Ratio (95 % CI)	
SREBF1 (tumor, high vs. low)	0.527	1.188 (0.697-2.024)	
Age	0.006	1.04 (1.011-1.07)	
Gender (female vs. male)	0.18	0.709 (0.429-1.172)	
pathological stage (7 <sup>th</sup> edition)	<0.001	1.998 (1.498-2.679)	
Smoking status	0.047	1.262 (1.003-1.587)	
ECOG	0.99	1.004 (0.546-1.846)	

ADC: adenocarcinoma, SQCC: squamous cell carcinoma, CI: confidence interval, ECOG: Eastern Cooperative Oncology Group Performance Status Scale