

2026 World Conference on Lung Cancer

SEPTEMBER 12 – 15, 2026 | SEOUL, REPUBLIC OF KOREA

MYCL Amplification in SCLC: Clinicopathologic and Multi-omics Analysis of a Pro-angiogenic Phenotype Beyond Conventional Classifications

Jingwei Zhang

Peking University People's Hospital, Beijing, China

Disclosure

The authors declare no conflicts of interest related to this work.

In compliance with ACCME standards, we confirm that no artificial intelligence tools were utilized in the development or content creation of this poster.

Introduction and methods

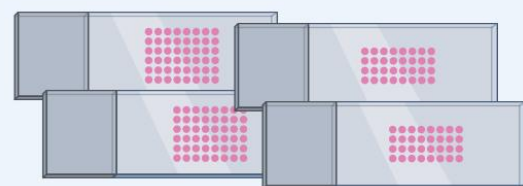
Small Cell Lung Cancer (SCLC)

- high malignancy and profound heterogeneity
- anti-angiogenic combinations
- lack molecular biomarker

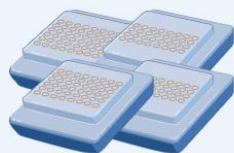
STAMP cohort

- SCLC Tissue Array for Multi-omics Profiling
- 160 surgically resected SCLC cases, spanning a total of 4 tissue microarrays (TMA)
- 20 representative scRNA-seq

STAMP cohort (SCLC Tissue Array for Multi-omics Profiling, $n = 160$)



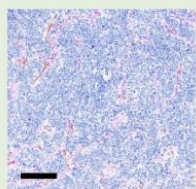
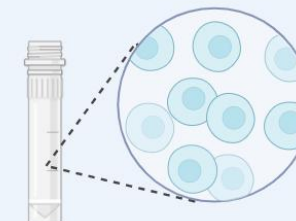
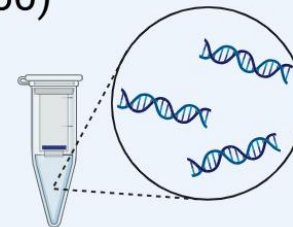
Tissue microarray construction



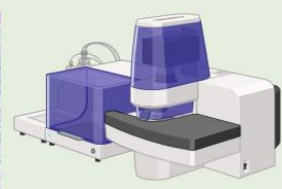
FFPE blocks



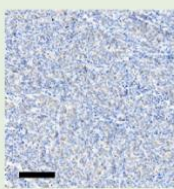
SCLC tumor



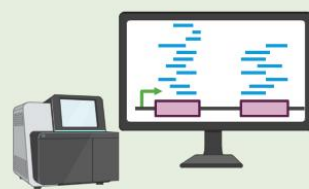
CD31/PAS



multiplex IHC



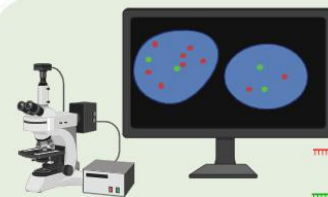
IHC (ANPY)



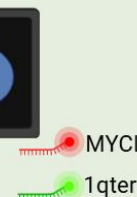
RNA-seq

Angiogenesis phenotype

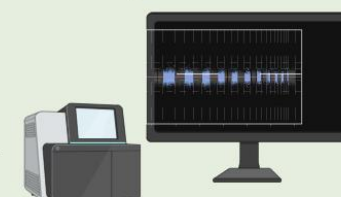
Molecular subtype validation



FISH



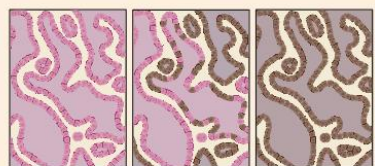
MYCL amplification status



WGS

scRNA-seq ($n = 20$)

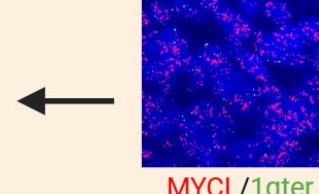
Functional analysis



Conventional classification



Expression profile

Microvascular density $\uparrow$ 

MYCL/1qter

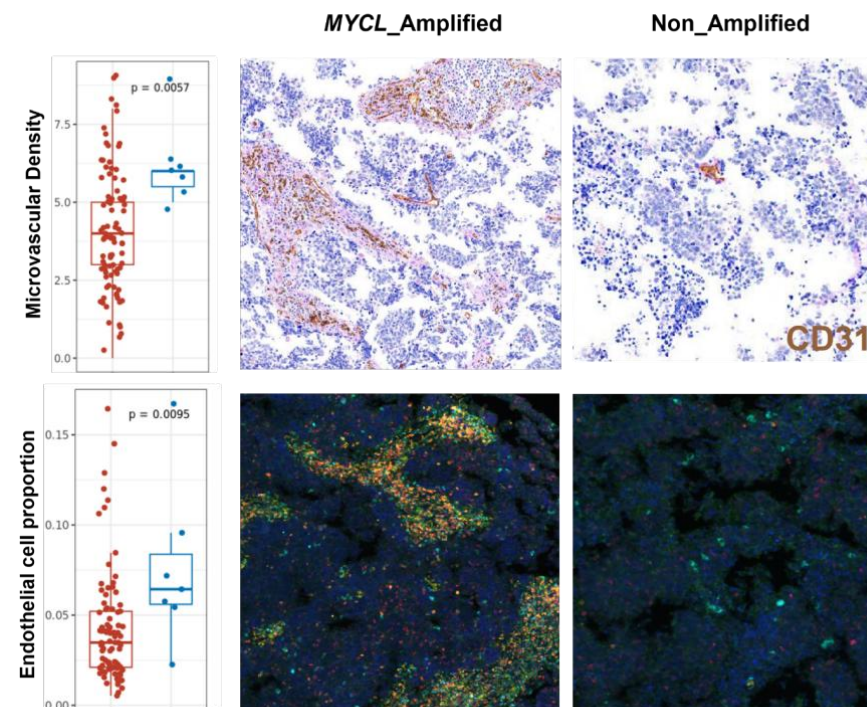
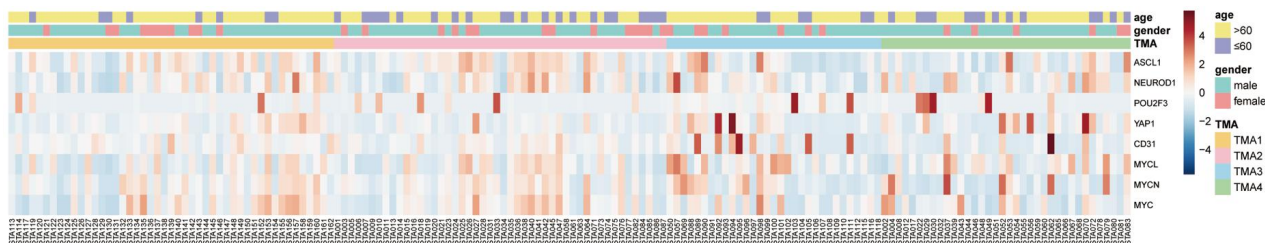
MYCL amplification: endothelial proportion $\uparrow$ & VEGFA signalling

Results

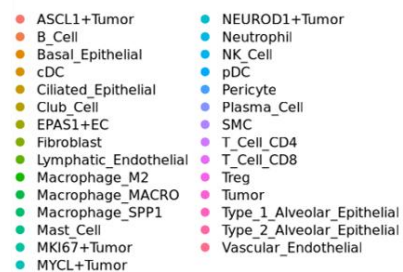
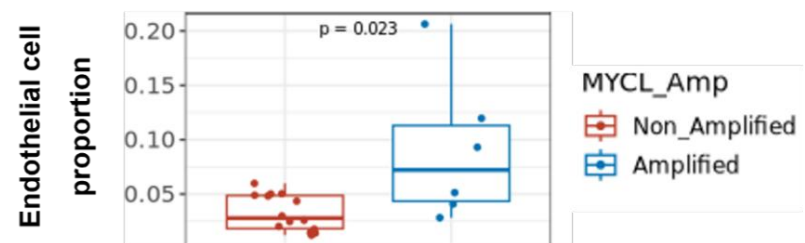
A. SCLC angiogenic profile is independent of molecular subtypes.

- TMA-based quantification of MVD (CD31/PAS) and endothelial cell fractions (mIHC).
- SCLC angiogenic profile is Independent of molecular subtypes and MYC family expression.

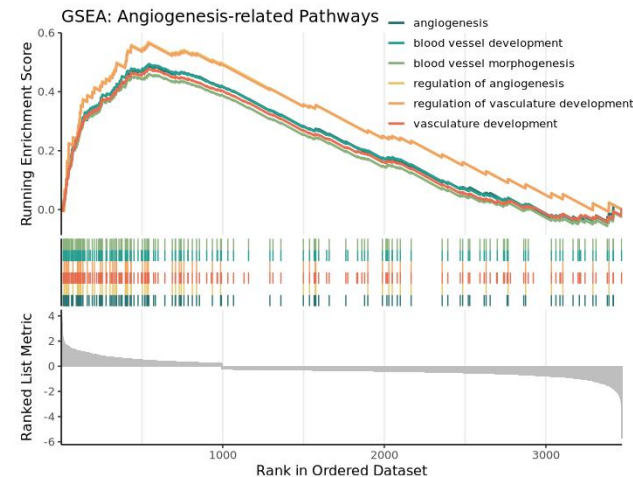
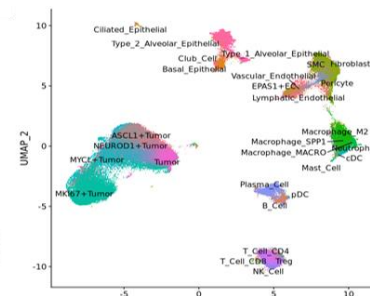
B. MYCL amplification defines hyper-vascularization phenotype in SCLC.



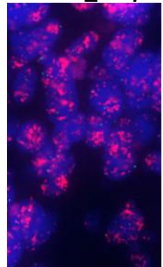
C. Single-cell RNA-seq confirms higher endothelial fraction in MYCL-amplified SCLC.



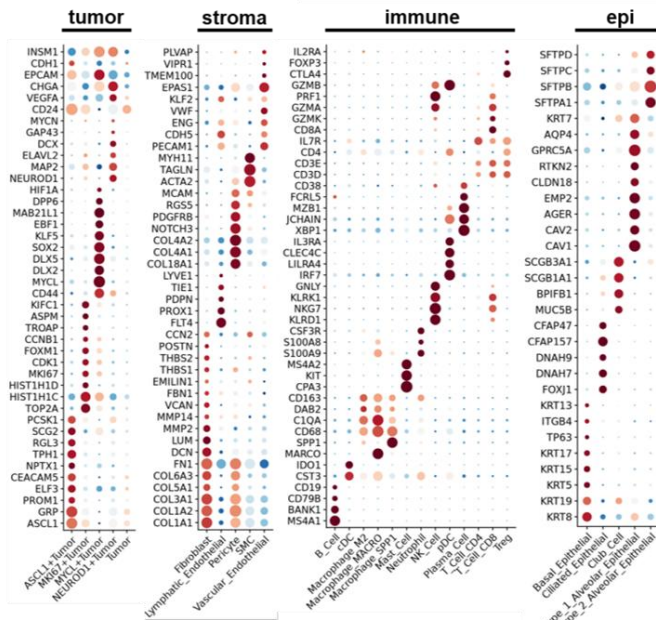
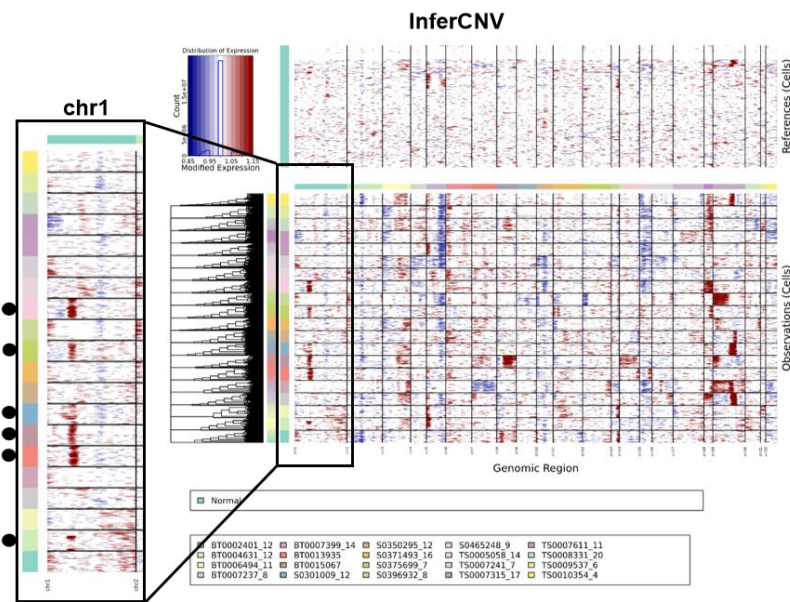
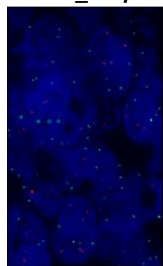
D. MYCL-amplified SCLC displays enriched angiogenic pathways.



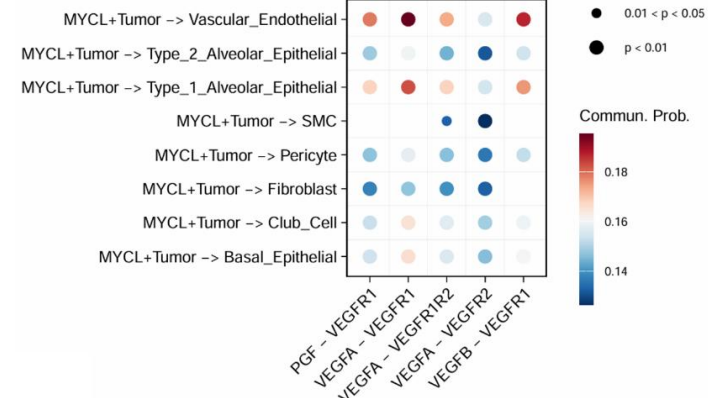
MYCL_Amp



Non_Amp

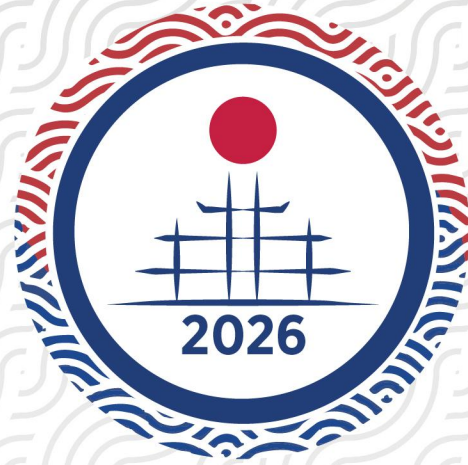


VEGF signaling



Conclusions and discussions

- MYCL amplification may define a distinct pro-angiogenic subtype of SCLC characterized by hyper-vascularization and enhanced VEGFA signaling, indicating MYCL amplification as a promising biomarker for optimize patient selection for anti-angiogenic therapies in SCLC.
- Prospective trials should validate MYCL amplification as a predictive biomarker for VEGFA-targeted agents.



Thank You.