



Haga clic para modificar el estilo de texto del patrón

Conclusiones

José Luis González Larriba

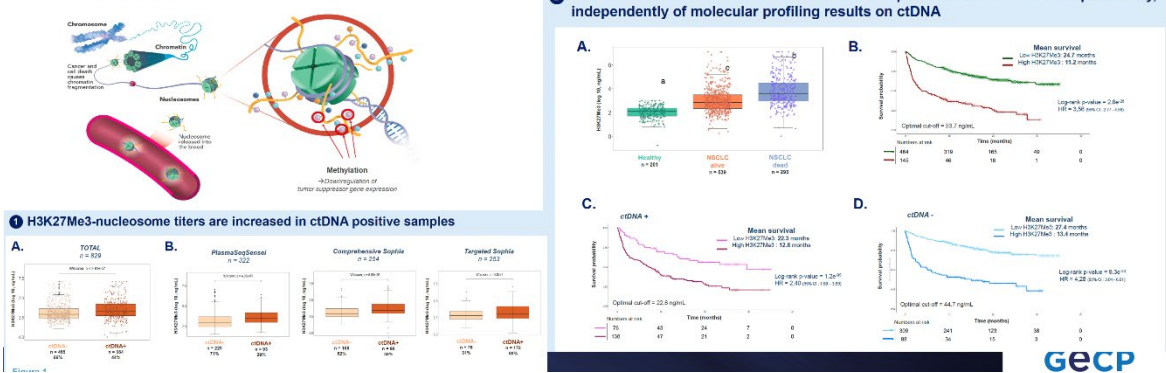
Hospital Clínico San Carlos. Universidad Complutense. Madrid

Biomarkers

Host-immune based and genomic prognostic biomarkers

H3K27Me3-nucleosome is a strong prognostic biomarker in NSCLC: interim results from the analysis of up to 832 patients at baseline

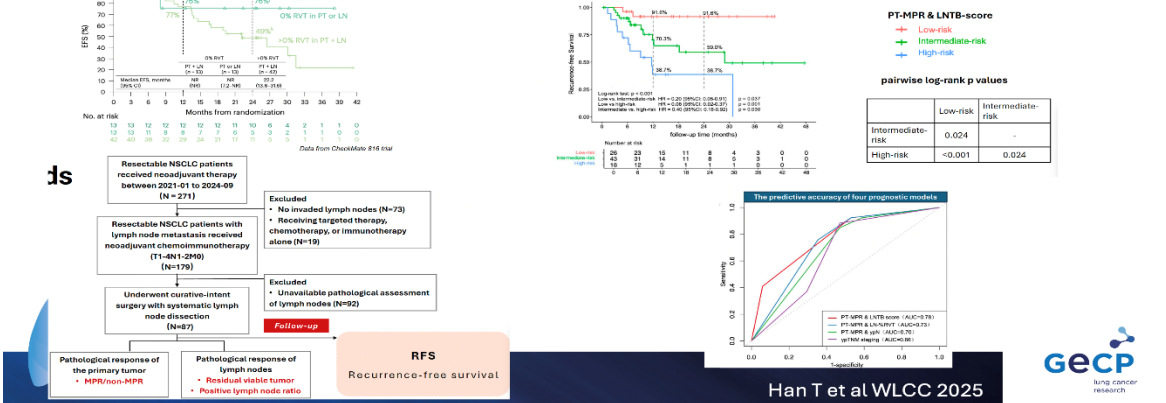
- ✓ Epigenetic modifications of nucleosomes play a crucial role in gene expression and are commonly dysregulated in tumors (Scheme 1). Aberrant levels of methylated nucleosomes in plasma have already been reported in lung cancer (Grolleau et al., 2023)
- ✓ To evaluate the complementarity of ctDNA molecular profiling and H3K27Me3-nucleosome titers in the prediction of NSCLC patients' outcome at diagnosis.



Clinical and pathological biomarkers

Prognostic value of residual viable tumor in lymph nodes of non-small cell lung cancer after neoadjuvant chemoimmunotherapy

- ✓ MPR definition differ among trials: CM-816 ($\leq 10\%$ residual tumor in primary tumor and lymph nodes) vs. AEGEAN (no nodal assessment).
- The low-risk group demonstrated significantly improved RFS than the intermediate-risk group, and the latter had better outcomes than the high-risk group.



Integrated prognostic model and artificial intelligence

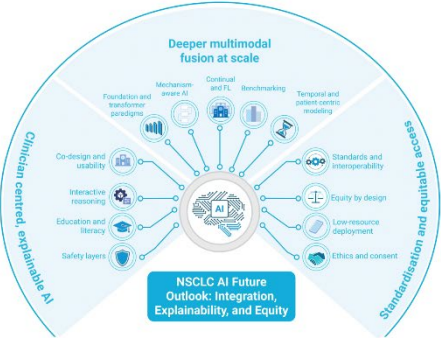
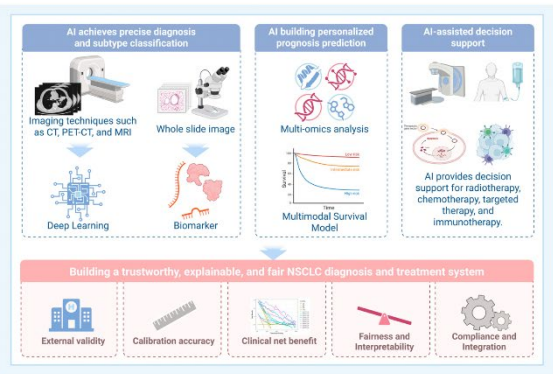
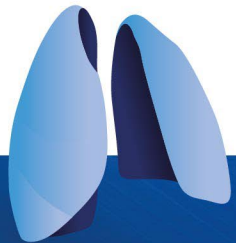
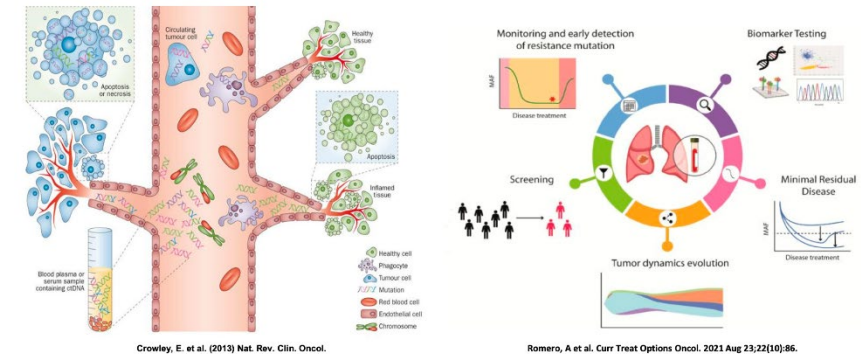
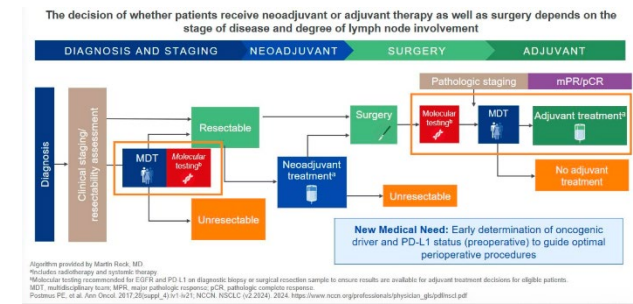


Figure 5 NSCLC AI Future Outlook: Integration, Explainability, and Equity

Figure 1 AI-enabled NSCLC pathway for precise diagnosis, personalized prognosis and clinical decision support

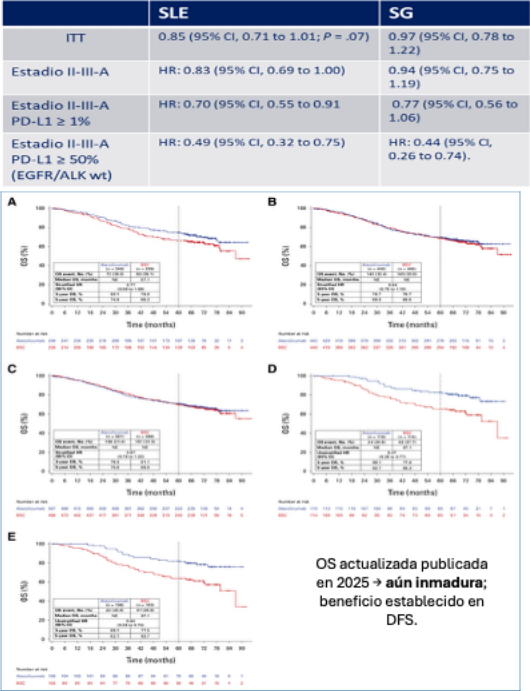
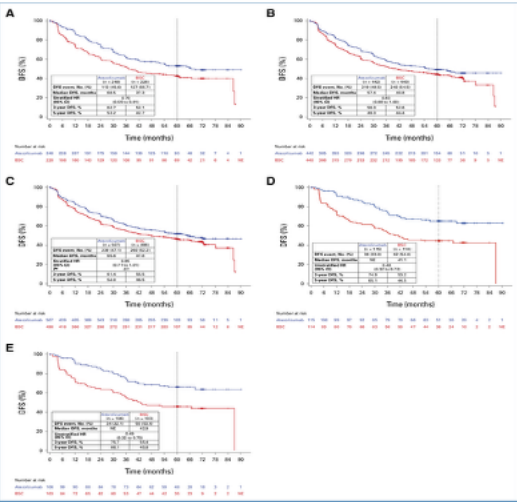
Key Trends in Lung Cancer Biomarkers for 2025

- ✓ **Multi-omics Integration**
 - ✓ Combining genomics + proteomics + transcriptomics + TME (microenvironment)
- ✓ **Liquid Biopsies**
 - ✓ Non-invasive diagnosis
 - ✓ Response monitoring
 - ✓ Early detection of therapeutic resistance
- ✓ **Expanding Clinical Panels**
 - ✓ RET, NTRK, BRAF, and MET
- ✓ **AI Applied to Biomarkers**
 - ✓ Validation and clinical deployment of complex biological signals
- ✓ **From Diagnosis to Prognosis/Monitoring**
 - ✓ Monitor tumor dynamics and predict disease progression



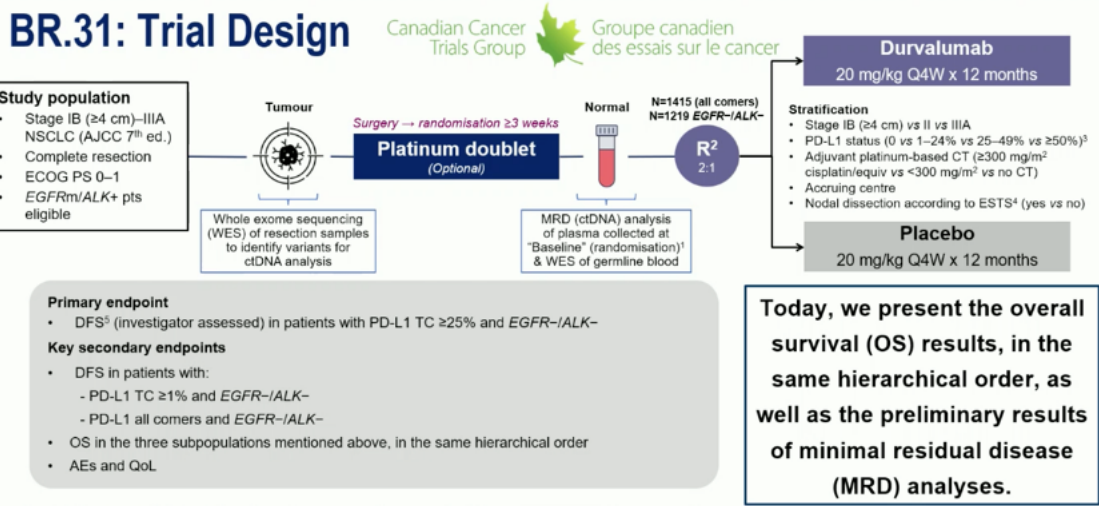
Adjuvant Treatment

Five-Year Survival Outcomes With Atezolizumab After Chemotherapy in Resected Stage IB-IIIA Non-Small Cell Lung Cancer (IMpower010): An Open-Label, Randomized, Phase III Trial

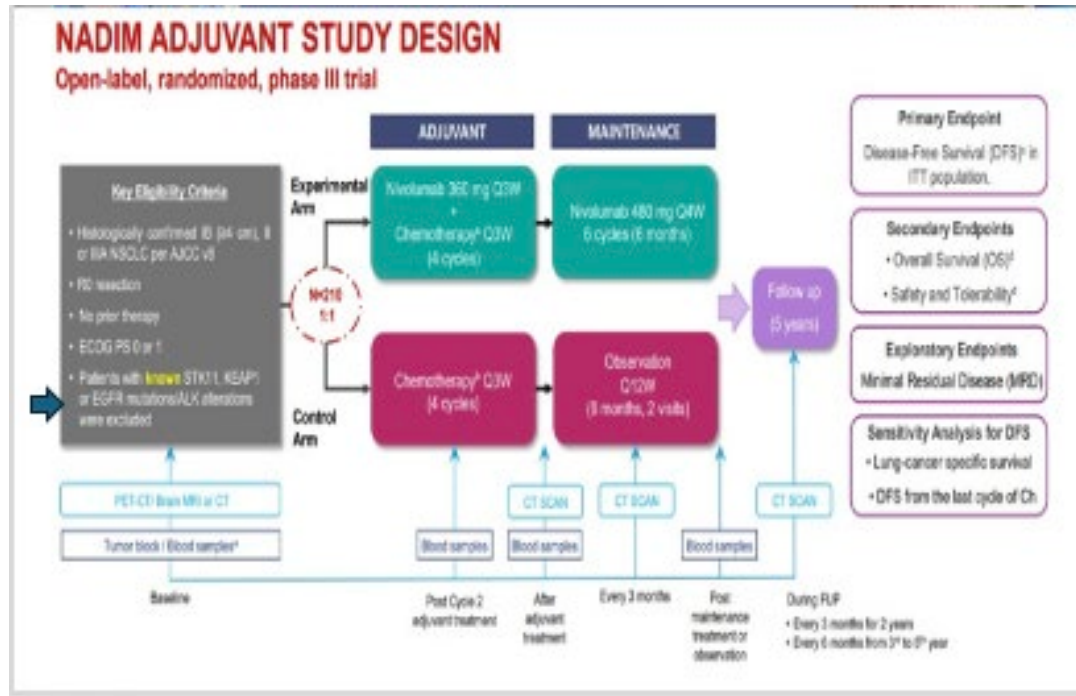


OS actualizada publicada en 2025 → aún inmadura; beneficio establecido en DFS.

Ensayo negativo....



Adjuvant Treatment. NADIM Adjuvant



CONCLUSIONS

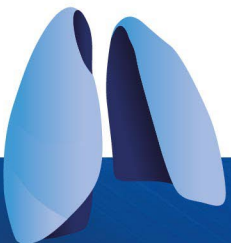
❑ NADIM ADJUVANT is the first phase III trial showing the impact of immediate post-surgical adjuvant chemo-immunotherapy in resected stage IB–IIIA NSCLC.

❑ At this interim analysis DFS and OS data remain immature, but a clinically meaningful reduction in relapse rates was observed:

20.4% in the experimental arm vs 38.8% in the control arm.

❑ The inclusion of all patients after surgery provides a real-world evidence perspective, since postoperative mortality and/or toxicity during the adjuvant period can affect DFS.

Sensitivity analysis of cancer-specific DFS: HR=0.54 (95% CI: 0.32–0.93; p = 0.025).



Adjuvant Treatment in NSCLC with Drivers

Something more than ADAURA....



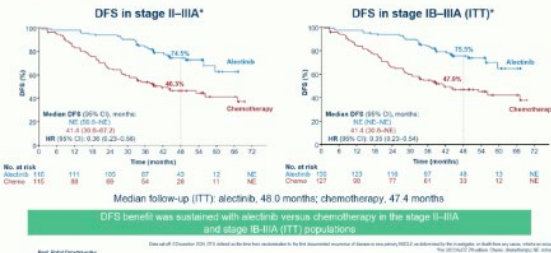
Updated results from the phase III ALINA study of adjuvant alectinib vs chemotherapy in patients with early-stage ALK+ non-small cell lung cancer (NSCLC)

R. Dziadziuszko¹, B.J. Solomon², Y. Wu³, J.S. Allen⁴, M. Rehak⁵, D.H. Lee⁶, J. Lee⁷, M. Zhong⁸, H. Horinouchi⁹, W. Mao¹⁰, M.J. Socinski¹¹, F. de Marinis¹², M.R. Migliorino¹³, I. Bondarenko¹⁴, T. Xia¹⁵, A. Cardenas¹⁶, A. Santoni¹⁷, V. McNally¹⁸, A.A. Higgins¹⁹, F. Barlesi²⁰

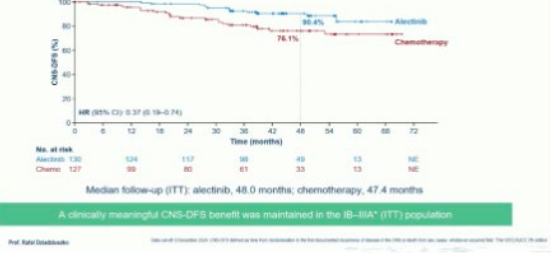
Abstract: Purpose: Alectinib is a potent, selective ALK inhibitor. In the phase III ALINA study, alectinib was compared with chemotherapy in patients with early-stage ALK+ NSCLC. The primary endpoint was progression-free survival (PFS). Secondary endpoints included overall survival (OS), disease-free survival (DFS), and quality of life. Results: The study showed that alectinib significantly improved PFS compared to chemotherapy. OS and DFS were also significantly improved in the alectinib group. Quality of life was significantly better in the alectinib group. Conclusion: Alectinib is a superior treatment option for patients with early-stage ALK+ NSCLC compared to chemotherapy.



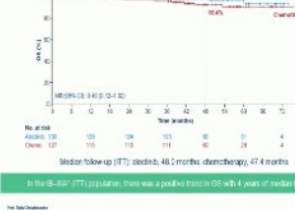
Disease-free survival



CNS disease-free survival (ITT)



Overall survival (ITT)



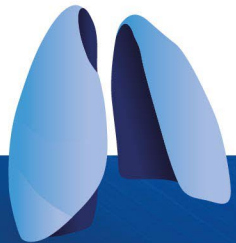
Post-recurrence subsequent therapy

	Alectinib (n=115)	Chemotherapy (n=115)
Number of patients with disease recurrence, n (%)	24 (21.4)	28 (24.3)
Number of patients with any subsequent therapy, n (%)	24 (21.4)	28 (24.3)
Systemic therapy, n (%)	24 (21.4)	28 (24.3)
Alectinib, n (%)	1 (4.2)	1 (3.6)
Tyrosine kinase inhibitors, n (%)	1 (4.2)	1 (3.6)
Chemotherapy, n (%)	1 (4.2)	1 (3.6)
Hormonal therapy, n (%)	1 (4.2)	1 (3.6)
Surgery, n (%)	1 (4.2)	1 (3.6)



Key takeaways 2025 - Early NSCLC

- ✓ LDCT screening could increase detection at operable stages and improve survival
- ✓ Minimally invasive surgery remains central to stage IA-IIIa cancer
- ✓ The use of adjuvant immunotherapy is a reality
- ✓ Adjuvant targeted therapies (EGFR, ALK) are already part of recommendations for patients with specific biomarkers

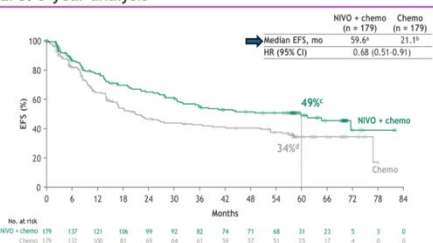


Neadjuvant Treatment

Final analysis: OS with neoadjuvant NIVO + chemo vs chemo

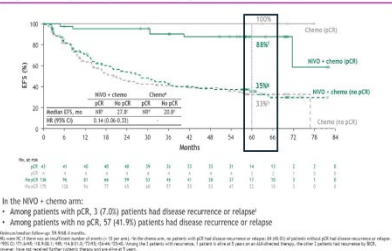


EFS: 5-year analysis



CHECKMATE 816

Exploratory analysis: EFS by pCR status



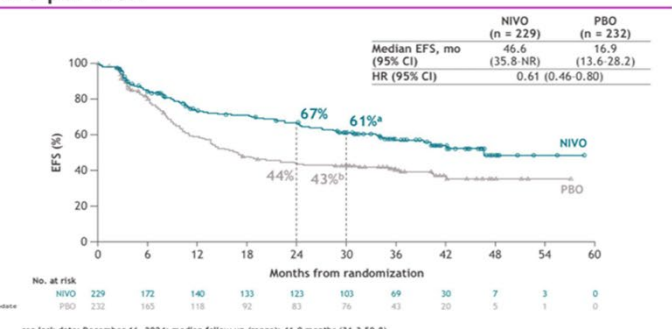
Análisis pronóstico : según pCR
(con independencia del PDL1)

Esquema de uso aprobado PDL1 >1%

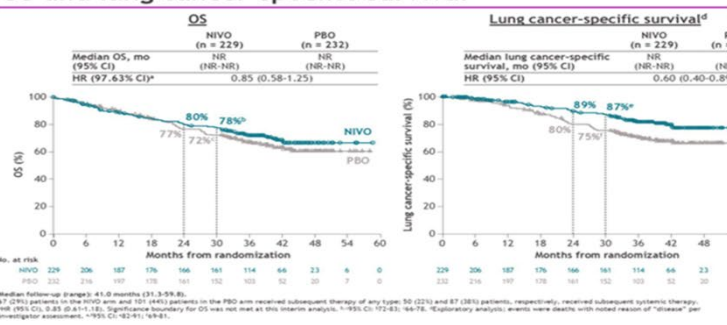


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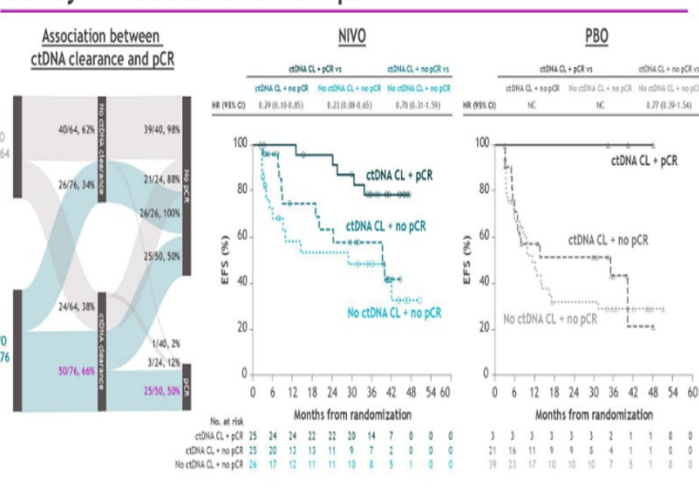
EFS per BICR



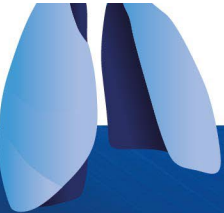
OS and lung cancer-specific survival



EFS by ctDNA clearance^a and pCR status



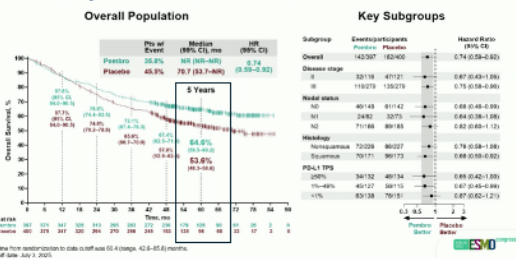
Median follow-up (range): 41.0 months (21.3-59.8).
^aChange from detectable ctDNA at neoadjuvant treatment initiation (C0) to no detectable ctDNA at neoadjuvant treatment completion (and of neoadjuvant treatment or prior to definitive surgery): patients with no detectable ctDNA at neoadjuvant C0) were excluded from this analysis. Of randomized patients, 12 (34%) patients in the NIVO arm and 74 (32%) patients in the PBO arm had ctDNA-evaluable samples at both neoadjuvant treatment initiation and completion; 74 (33%) and 64 (28%) patients, respectively, had detectable ctDNA at neoadjuvant treatment initiation. Landmark EFS from definitive surgery continued to favor NIVO vs PBO in patients with pCR (HR, 0.90; 95% CI, 0.19-4.15) or without pCR (HR, 0.72; 95% CI, 0.30-1.05).



Neoadjuvant Treatment

Datos a 5 años

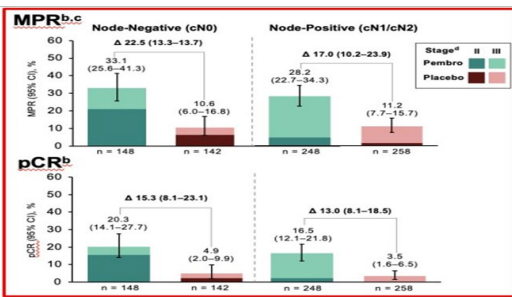
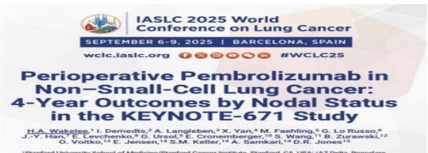
5-Year Update of Overall Survival



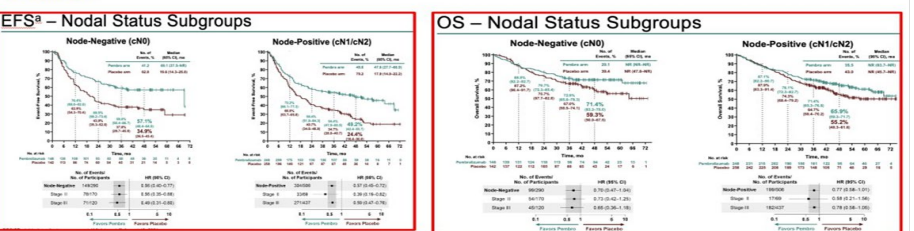
5-Year Update of Event-Free Survival^a



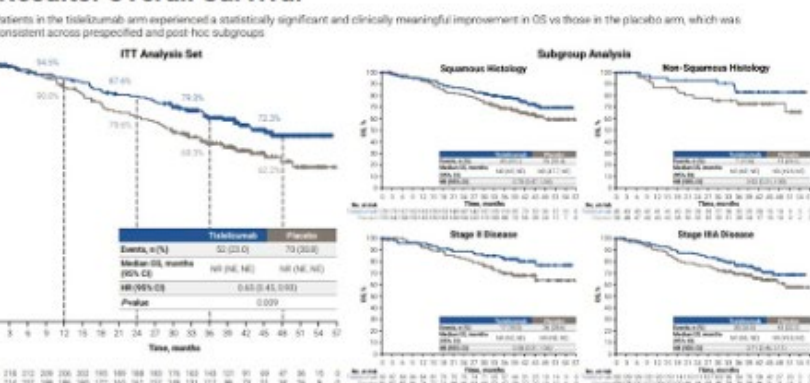
KEYNOTE-671



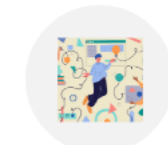
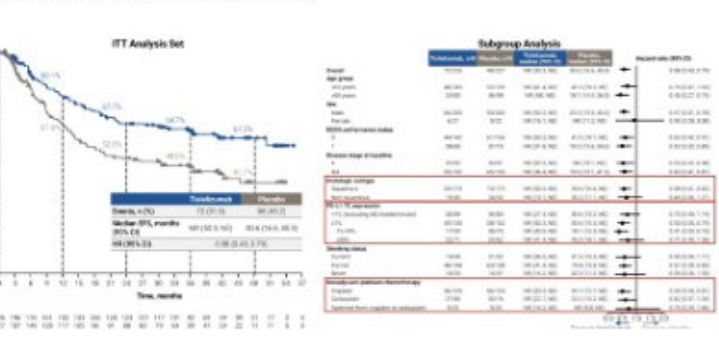
Perioperative Pembrolizumab in NSCLC: 4-Year Outcomes by Nodal Status in the KEYNOTE-671 Study



Results: Overall Survival



Results: Event-Free Survival



RATIONALE 315

Neoadjuvant Treatment in NSCLC with drivers

ALNEO

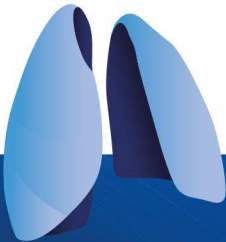
Que nos aporta el Neoadaura ...

Lo que sí aporta:
Confirma que, en EGFR resecable, una estrategia con TKI neoadyuvante puede generar **respuesta patológica relevante** y es quirúrgicamente viable

Lo que no resuelve todavía :
No es un ensayo diseñado para demostrar OS madura en 2025.
¿Necesitamos quimioterapia añadida al osimertinib neoadyuvante?

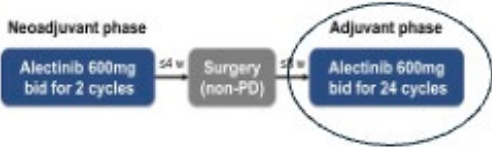


¿ Cómo se integra con **adyuvancia osimertinib (ADAURA)**, porque en la vida real muchos pacientes recibirán adyuvancia?



Study Design

- Resectable locally advanced stage III NSCLC
- Candidate for surgical resection after multidisciplinary discussion
- ALK-positive (IHC/FISH/NGS)
- No Previous treatment
- ECOG PS 0-1



→ **Primary Endpoint:** MPR ($\leq 10\%$ viable tumor) by BICR
Secondary Endpoints: pCR by BICR, ORR, EFS, DFS, OS, AEs
Ancillary biological study*: correlation of tissue and cell-free biomarkers with MPR and DFS

According to the Simon's two-stage mini-max design, the null hypothesis that the MPR is $\leq 20\%$ will be tested and will be rejected if 11 or more MPR are observed in 33 patients at the final analysis. This design yields a one-sided type I error rate of 0.05 and power of 0.80 when the true MPR is 40%.

Abbreviations: AEs, Adverse Events; BICR, Blinded Independent Central Review; DFS, Disease-Free Survival; EFS, Event-Free Survival; MPR, Major Pathologic Response; ORR, Objective Response Rate; OS, Overall Survival; pCR, Pathologic Complete Response; PD, Progressive Disease.

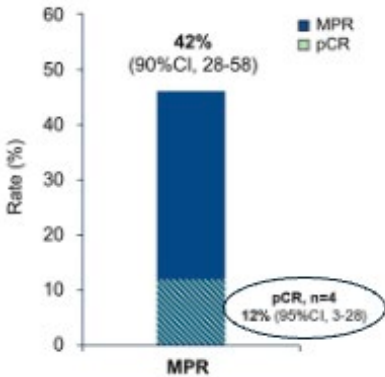
*Tissue collection at diagnosis and surgery, plasma collection at baseline, after 4 and 8 weeks of neoadjuvant therapy, within 2 weeks of surgery, and at the time of recurrence.

2021 ASCO | ASCO Q201 | Presentation: Marcelo Tassi, MD, PhD
Presentation supported by AstraZeneca | Presentation based on data submitted to ASCO Q201

ASCO | Presentation: Marcelo Tassi, MD, PhD
Presentation supported by AstraZeneca | Presentation based on data submitted to ASCO Q201

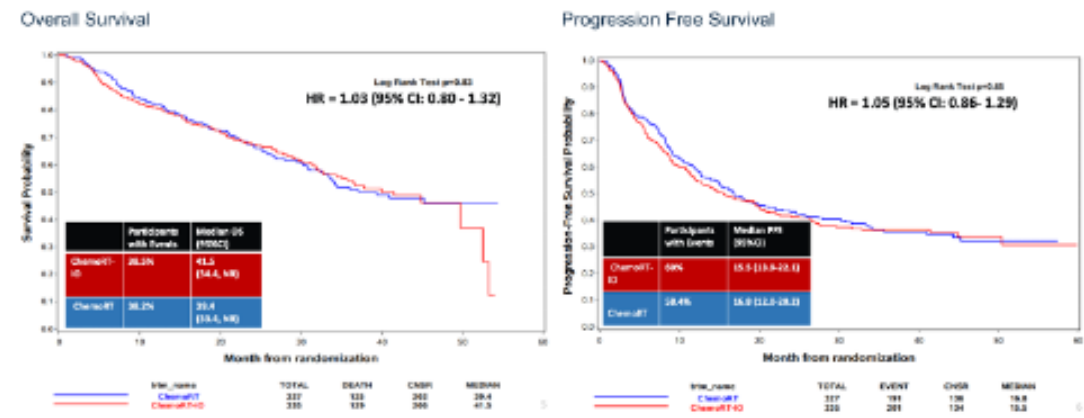
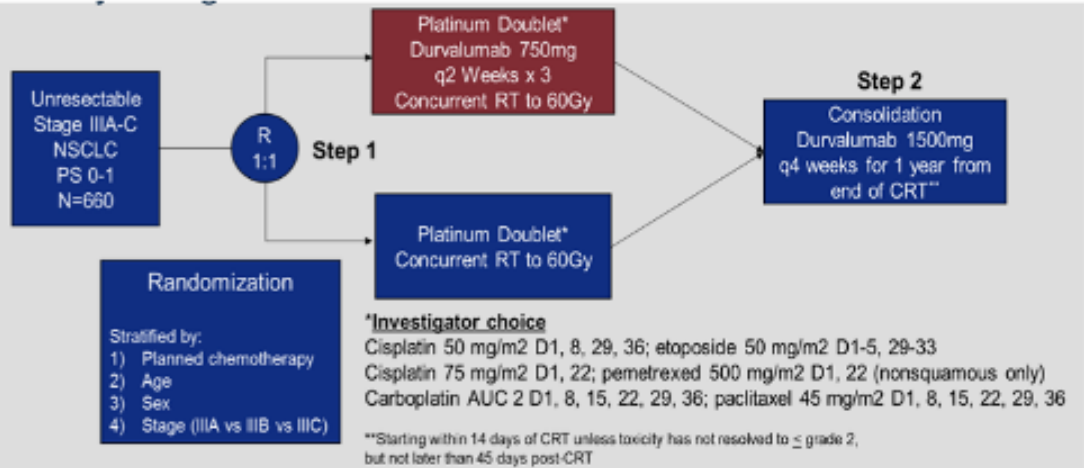
Pathologic Response	N=33
MPR ($\leq 10\%$ viable tumor), n (%)	14 (42)
Non-MPR ($> 10\%$ viable tumor), n (%)	13 (40)
Not assessed, n (%)	6 (18)*

*5 patients did not undergo surgery, 1 patient underwent explorative thoracotomy



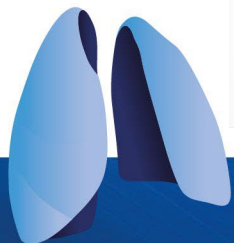
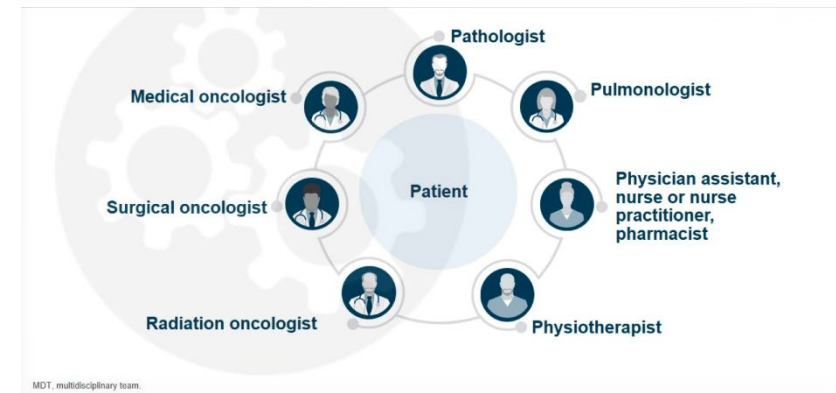
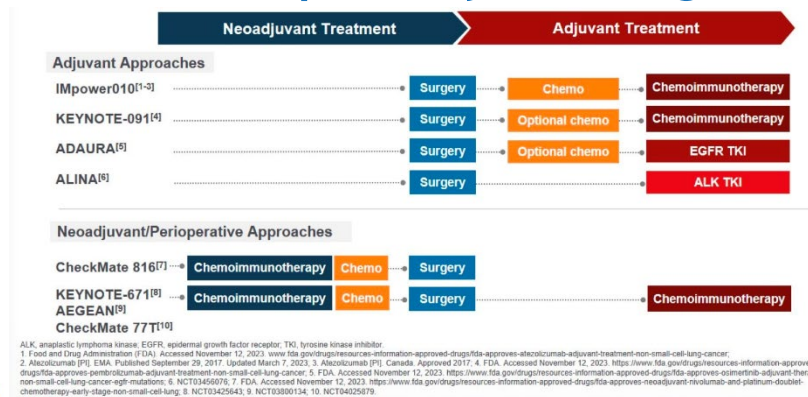
Is there anything beyond the Pacific....?

ECOG-ACRIN EA5181: Phase 3 Trial of Concurrent and Consolidative Durvalumab vs Consolidation Durvalumab Alone for Unresectable Stage III NSCLC



Key takeaways 2025 - Locally advanced NSCLC

- ✓ The use of perioperative immunotherapy (neoadjuvant/adjuvant) is a reality and is changing the standards
- ✓ In locally advanced cancer, chemoradiotherapy + immunotherapy/targeted therapy offers better results.
- ✓ Multidisciplinary management with precision medicine is essential for



Metastatic Disease

ARTICLE IN PRESS

ESMO

GOOD SCIENCE
BETTER MEDICINE
BEST PRACTICE

ESMO

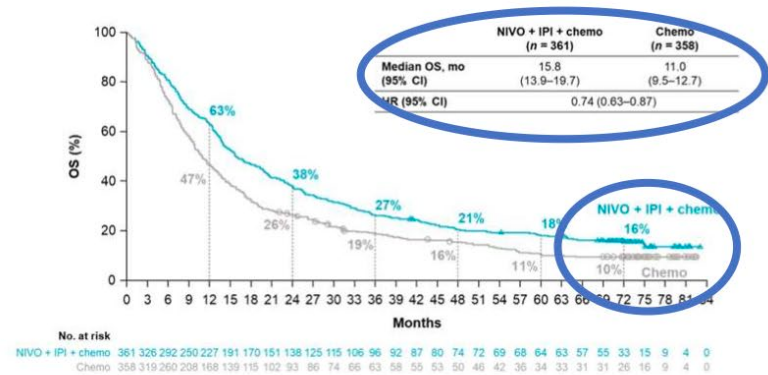
OPEN

SCIENCE FOR OPTIMAL
CANCER CARE

ORIGINAL ARTICLE

Nivolumab plus ipilimumab with chemotherapy as first-line treatment of patients with metastatic non-small-cell lung cancer: final, 6-year outcomes from CheckMate 9LA

OS in all randomized patients - Fig 1



Minimum/median follow-up for OS: 68.6/75.8 months.

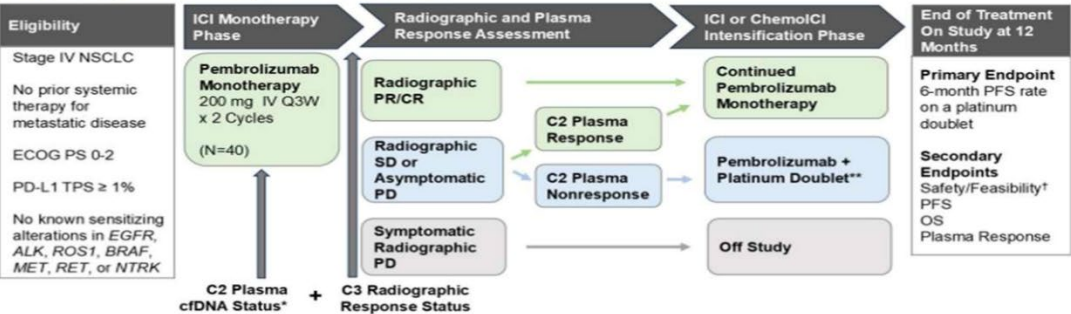
2025 ASCO
ANNUAL MEETING

Plasma-guided adaptive first-line chemoimmunotherapy for non-small cell lung cancer (NSCLC)

Julia K. Rotow, Grace Heavey, Mizuki Nishino, Shail Maingi, Christopher S. Lathan, Umit Tapan, Alexandra S. Bailey, Zihan Wei, Emanuele Mazzola, Diandra Ocot, Geoffrey R. Oxnard, David A. Barbie, Pasi A. Jänne, Cloud P. Paweletz, Michael L. Cheng

Julia Rotow, MD
Clinical Director, Lowe Center for Thoracic Oncology, Dana-Farber Cancer Institute
Assistant Professor, Harvard Medical School

Plasma response-guided adaptive treatment of advanced NSCLC receiving first-line pembrolizumab



*Plasma Response defined as ≥50% reduction in plasma ctDNA max AF for patients with high shed [≥0.5% max AF] at baseline or continued low shed [≤0.5% max AF] for patients with low shed at baseline, as measured by amplicon-based plasma NGS

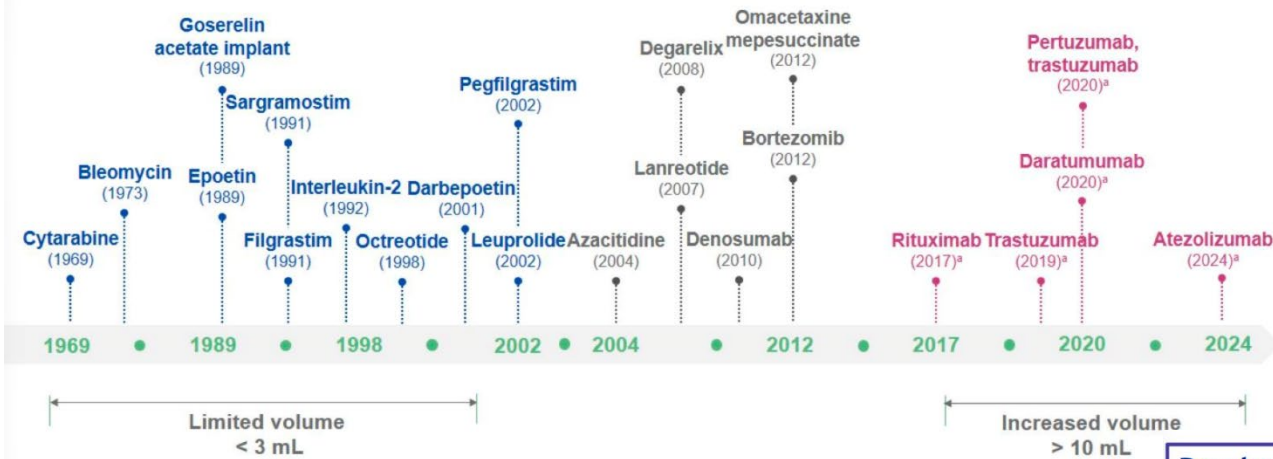
**NSQ: Carboplatin AUC 5 + Pemetrexed 500 mg/m2 Q3W x 4 cycles followed by Pemetrexed 500 mg/m2 Q3W; SQ: Carboplatin AUC 6 + Paclitaxel 200 mg/m2 Q3W x 4 cycles, with concurrent pembrolizumab 200 mg IV Q3W to end of study treatment

†Feasibility defined as completion of the integrated plasma response and C3 imaging assessment, with one-sided upper 90% binomial confidence interval >82.5%



Subcutaneous Therapies in Cancer

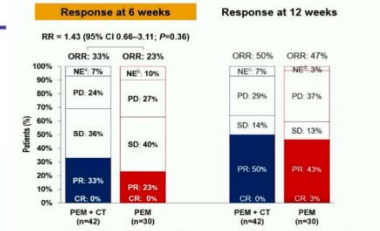
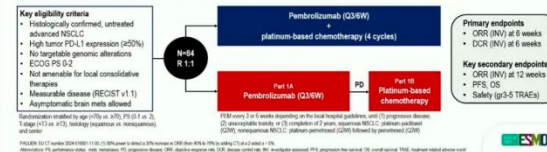
SC forms of administration have evolved over time to facilitate higher-volume medications



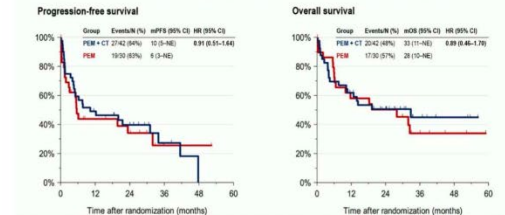
Pembrolizumab plus chemotherapy vs pembrolizumab as first-line therapy for advanced NSCLC with PDL1 (TPS) $\geq$ 50%: open-label, phase 3, randomized trial (PAULIEN)

Study rationale and design

- Pembrolizumab (PEM) is the standard first-line therapy for advanced NSCLC with high tumor PD-L1 expression (TPS $\geq$ 50%) and no targetable genomic alterations.
- However, in those cases where an urgent tumor response is needed, chemotherapy (CT) is often added to PEM, though its benefit is unclear.
- PAULIEN is a multicenter (eight Dutch sites), open-label, phase III, randomized controlled, superiority trial comparing PEM + CT with PEM to assess tumor responses at 6 weeks.
- Hypothesis: adding CT to PEM will result in a 30% increase¹ in objective tumor response (ORR) at 6 weeks.



Progression-free survival and overall survival



New approaches, drugs or combinations in Metastatic NSCLC

- ✓ Classical immunotherapy and something more
 - ✓ Relatlimab
 - ✓ Riltresgovimig
 - ✓ Volrustomig
- ✓ Comparative studies against other combinations
- ✓ ADC
 - ✓ Anti-TROP2 (Datopotomab Deruxtecan) +/- QT
- ✓ Antiangiogenics + Immunotherapy



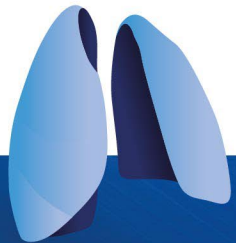
And, in metastatic NSCLC with driver genes

- ✓ FLAURA2 vs MARIPOSA Dilemma
- ✓ Second lines in EGFR+
- ✓ New drugs in ALK
- ✓ ROS1
- ✓ KRAS
- ✓ BRAF
- ✓ HER-2
- ✓ MET
- ✓ MTAP
- ✓



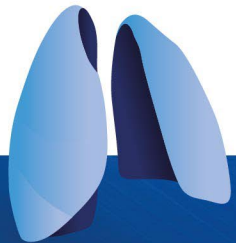
Key takeaways for 2025 – Metastatic Disease NSCLC

- ✓ Newly approved antibody-drugs conjugates (ADCs) offer targeted options with good tolerability profiles
- ✓ Innovative and next-generation therapies (ROS1 inhibitors, viral immunotherapy) aim to overcome therapeutic resistance
- ✓ Combination therapies and maintenance therapy enhance outcomes after initial response
- ✓ Molecular profiling and biomarkers guide precise treatment decisions
- ✓ Survival is gradually improving, although the challenge of metastatic disease remains enormous

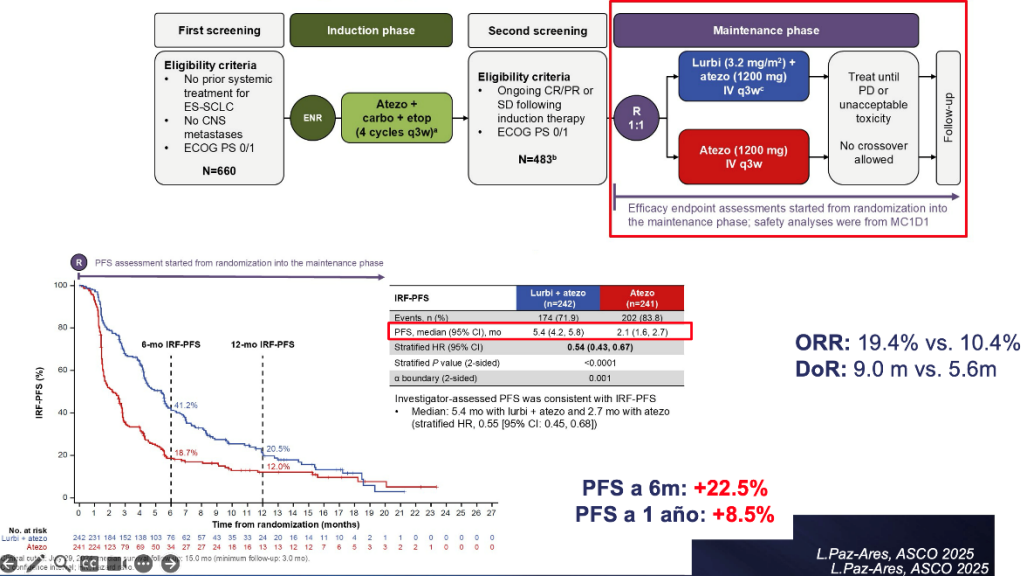


SCLC 2025

- ✓ Maintenance treatment with Lubinectidine + Atezolizumab
- ✓ Tarlatamab
- ✓ ADC

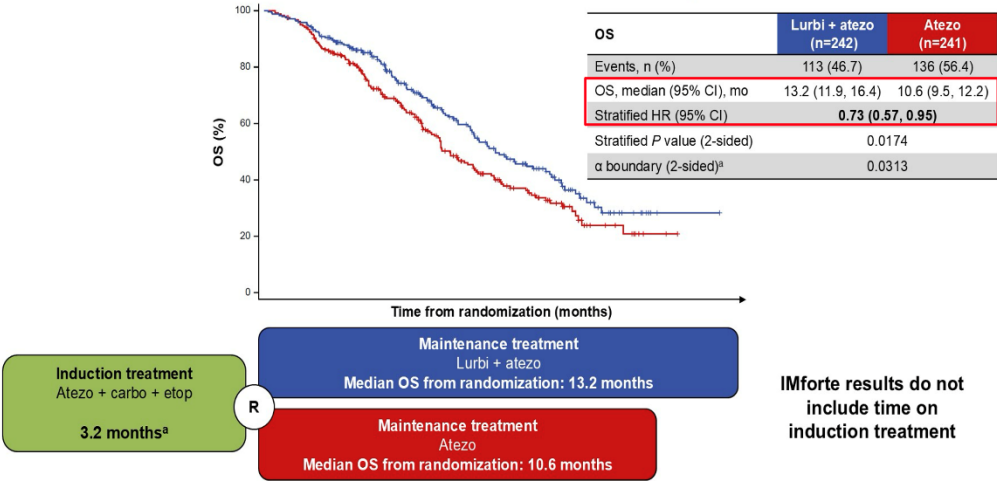


MANTENIMIENTO LURBINECTEDINA-ATEZOLIZUMAB – Ph3 IMforte



MANTENIMIENTO LURBINECTEDINA-ATEZOLIZUMAB – Ph3 IMforte

OS from randomization into maintenance phase



TARLATAMAB EN 2L - Ph3 DeLLphi-304

Key inclusion criteria

- Histologically or cytologically confirmed SCLC
- Progression after 1L platinum-based chemotherapy +/- anti-PD-(L)1
- ECOG PS 0 or 1
- Asymptomatic, treated or untreated brain metastases

Randomization stratified by

- Prior anti-PD-(L)1 exposure (yes/no)
- Chemotherapy-free interval (< 90 days vs ≥ 90 to < 180 days vs ≥ 180 days)
- Presence of (previous/current) brain metastases (yes/no)
- Intended chemotherapy (topotecan/irinotecan vs irinotecan)

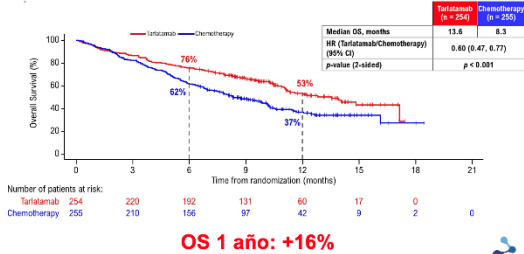
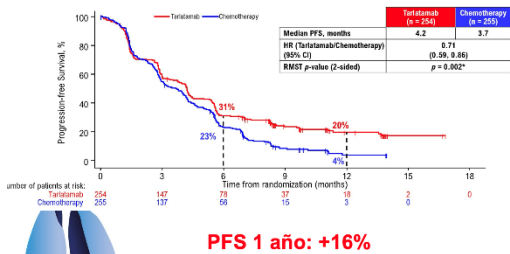
R
1:1
(N = 509)

Tarlatamab (n = 254)

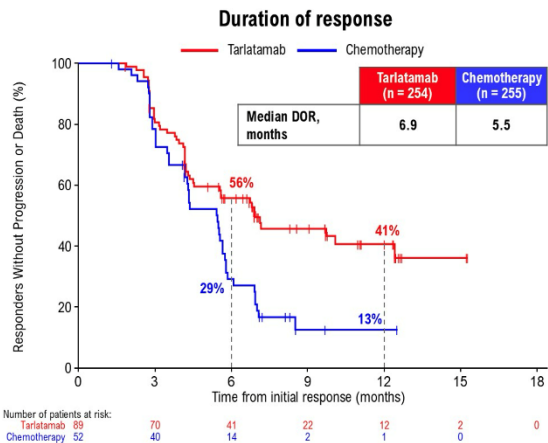
Chemotherapy* (n = 255)

CFI <90d: T 43%; CT 45%
Brain M1: T 44%; CT 45%

Topotecan (n = 185); Lurbinectedin (n = 47);
Ammuricin (n = 23)

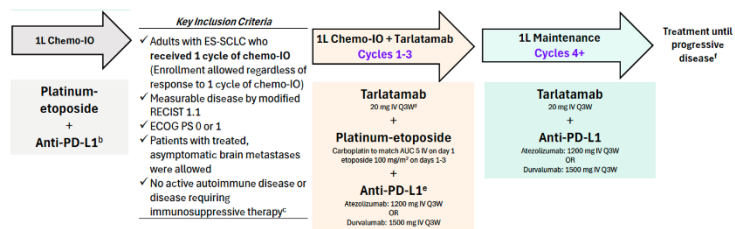


	Tarlatamab (n = 254)	Chemotherapy (n = 255)
Best overall response[†], n (%)		
Complete response	3 (1)	0 (0)
Partial response	86 (34)	52 (20)
Stable disease	84 (33)	112 (44)
Progressive disease	56 (22)	50 (20)
Not evaluable/no post-baseline scan	25 (10)	41 (16)
Objective response rate[†], % (95% CI)	35 (29–41)	20 (16–26)
Median duration of response, months	6.9	5.5
Median time to objective response, months	1.5	1.4
Ongoing response at data cutoff, n (%)	42 (47)	8 (15)

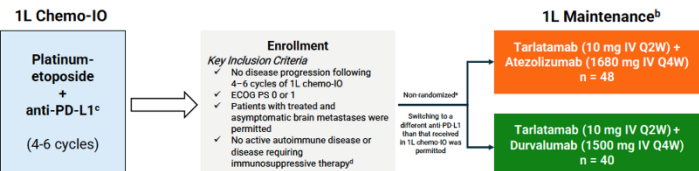


TARLATAMAB EN 1L - Ph1b: DeLLphi-303

Cohortes 2,4,7



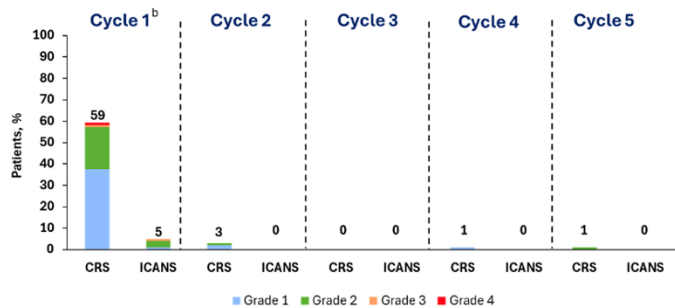
Cohortes 5,6,8



TARLATAMAB EN 1L - Ph1b: DeLLphi-303

DESDE INDUCCIÓN (Cohortes 2,4,7)

Treatment-emergent CRS and ICANS by cycle^a



- CRS and ICANS were associated with a low rate of
 - tarlatamab dose interruptions (CRS and ICANS: 1% each)
 - tarlatamab discontinuations (CRS and ICANS: 1% each)
- There were no fatalities related to CRS or ICANS
- The median time to onset of CRS from last prior dose of tarlatamab was 13.3 hours (IQR: 8.0–19.3)
- The median time to onset of ICANS from last prior dose of tarlatamab was 5 days (IQR: 3.0–5.0)

ADCs EN CPCP

DLL3

Rova-T
SHR-4849 (IDE819)

SEZ-6

 ABBV-706
ABBV-011

B7-H3

HMB088C
HS-20093 (GSK5764227)
I-DXd (DS7300)
YL201

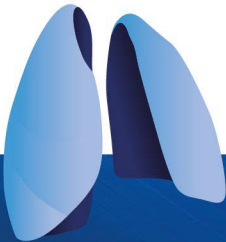
TROP-2

SACI-GOVITECAN
SHR-A1921

ADCs EN CPCP PREVIAMENTE TRATADOS

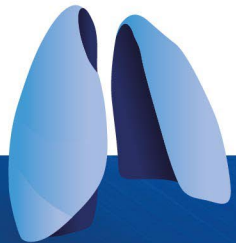
	ABBV-706 1.8mg/kg (N=41)	QLC5508 (MHB088C) 1.6-2.4mg/kg (N=103)	I-DXd 12mg/kg (N=137)	HS20093 (GSK5764227) 8mg/kg (N=31) ¹	YL201 1.6-2.8mg/kg (N=72) ²	Sacituzumab Govitecan (N=43) ³
Target	SEZ6	B7-H3	B7-H3	B7-H3	B7-H3	TROP2
Payload	Top1 inhibitor	Top1 inhibitor (SuperTopoi™)	Top1 inhibitor (DXd)	Top1 inhibitor (HS-9265)	Top1 inhibitor	Top1 inhibitor (SN-38)
DAR	6	4	4	4	8	7.6
Linker	Cleavable	Cleavable	Cleavable	Cleavable	Cleavable	Cleavable
ORR/DCR	56%	36.9/90.3%	48.2/87.6%	61.3/80.6%	63.9/91.7%	41.9/83.7%
mPFS/OS	6.8 months/ 60%(9month OS)	5.72/11.50 months	4.9/10.3 months	5.9/9.8 months	6.3/- months	4.4/13.6 months
Main AEs	Hematological toxicity	Hematological toxicity	Hematological toxicity/GI toxicity	Hematological toxicity	Hematological toxicity	Diarrhea/Hematol ogical toxicity

1) WCLC 2024, 2) Ma Y, et al. Nat Med. 2025 Jun;31(6):1949-1957. 3) Dowlati A et al. J Thorac Oncol. 2025 Jun;20(6):799-808.



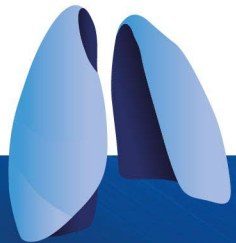
Key Takeaways 2025 – SCLC

- ✓ Combined maintenance therapy with lurbinectedin + atezolizumab changes the first-line paradigm in ES-SCLC
- ✓ ADCs targeting B7-H3 and other targets offer promising options in pretreated disease
- ✓ Tarlatamab is a bispecific agent with great therapeutic potential
- ✓ Immunotherapy remains central, with research into innovative combinations
- ✓ Survival and disease control are gradually improving, but there is still a need for more effective and longer-lasting therapies



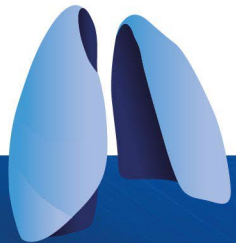
Other thoracic tumors

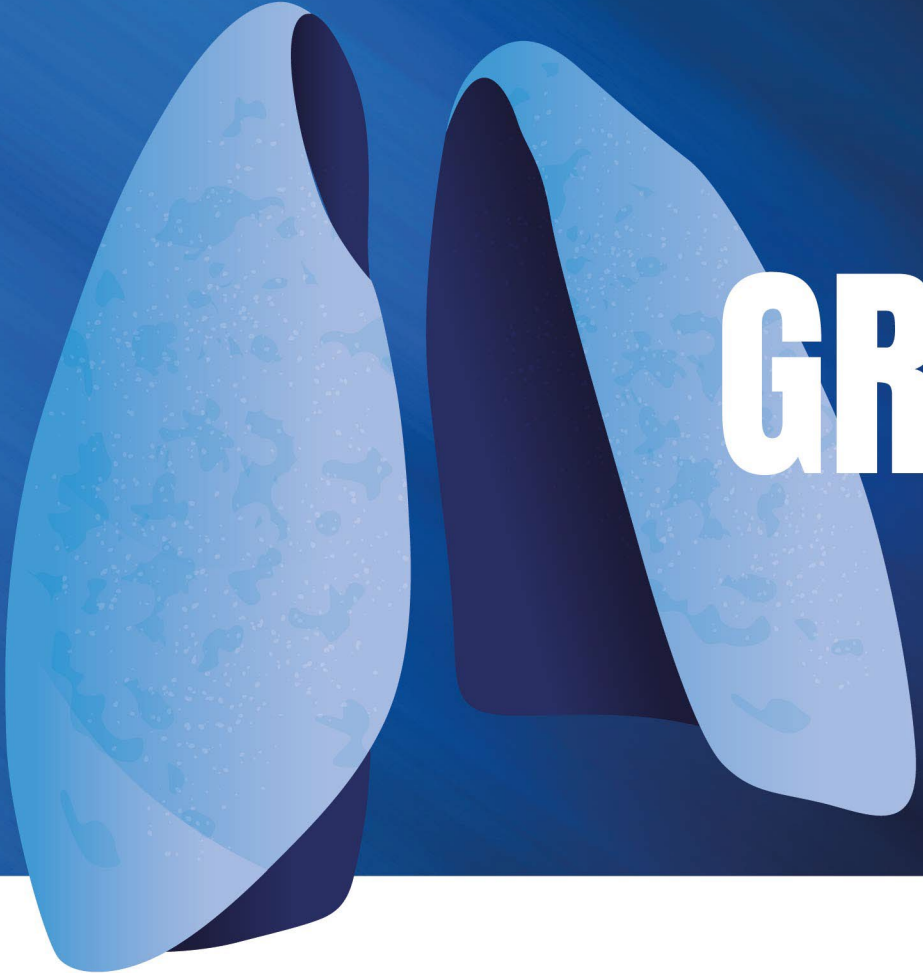
- ✓ Mesotheliomas
 - ✓ Combinations of Chemo + Immunotherapy
- ✓ Thymic Epithelial Tumors
 - ✓ Riboceranib



Key takeaways for 2025

- ✓ Lung cancer remains a priority in global cancer research
- ✓ AI and non-invasive tests are becoming more established for earlier diagnosis
- ✓ The use of immunotherapy and targeted therapies is moving towards earlier stages of treatment
- ✓ Ongoing trials with new anti-drug therapies (ADCs) could lead to new therapeutic standards in the coming years
- ✓ Promising new agents in SCLC
- ✓ Liquid biopsy is becoming increasingly useful not only for diagnosis but also for dynamic monitoring





GRACIAS