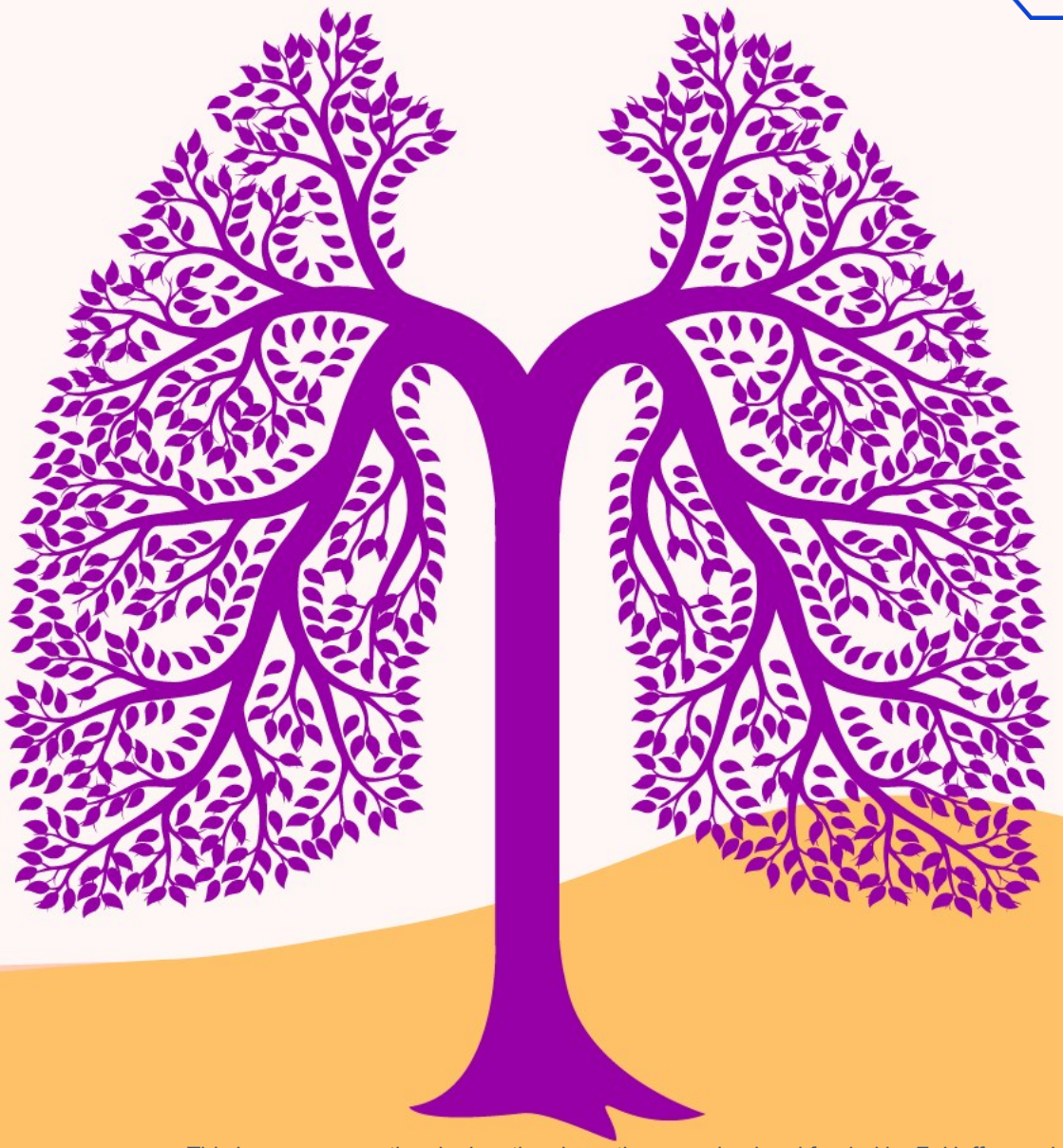
ESMO 2023 Industry Satellite Symposium

Redefining Lung Cancer **Together:** A New Era for Patients



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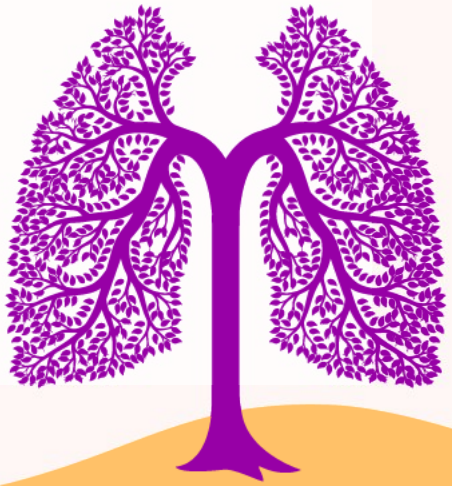

Disclosures

Stephen V Liu: advisory board/consultancy for AbbVie, Amgen, AstraZeneca, Boehringer-Ingelheim, Bristol Myers Squibb, Catalyst, Daiichi Sankyo, Eisai, Elevation Oncology, Genentech/Roche, Gilead, Guardant Health, Janssen, Jazz Pharmaceuticals, Merck, Merus, Mirati, Novartis, Regeneron, Sanofi, Takeda, and Turning Point Therapeutics; research grants (to institution) from AbbVie, Alkermes, Elevation Oncology, Ellipses, Genentech, Gilead, Merck, Merus, Nuvalent, RAPT, and Turning Point Therapeutics; member of Data Safety Monitoring Board for Candel Therapeutics

Nasser Altorki: research grants from AstraZeneca and Janssen; honoraria from Merck, Regeneron, and Roche

Lara Pijuan: consulting fees and honoraria from AstraZeneca, Janssen, Merck/MSD, and Roche

Martin Reck: honoraria from Amgen, AstraZeneca, BeiGene, Bristol Myers Squibb, Boehringer Ingelheim, Daiichi Sankyo, GlaxoSmithKline, Janssen, Lilly, Medscape, Merck Serono, Mirati Therapeutics, MSD, Novartis, Pfizer, PharmaMar, Regeron, Roche/Genentech, Sanofi and Takeda; speakers' bureau for AstraZeneca, BMS, Boehringer Ingelheim, Daiichi Sankyo, GSK, Lilly, Merck Serono, Mirati, MSD, Pfizer, Roche/Genentech, Sanofi, and Takeda; research funding (to institution) from Boehringer Ingelheim, and Bristol Myers Squibb; member of Data Safety Monitoring Board for Daiichi Sankyo, and Sanofi

Alba Silverio Pons: consultancy for Roche

Meeting Chair

Stephen V Liu

Georgetown University
Washington DC, USA

Welcome and introduction

Symposium faculty

Stephen V Liu (Chair)

Georgetown University
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Nasser Altorki

Weill Cornell Medicine
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Lara Pijuan

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Barcelona, Spain

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Vall d´Hebron Institute of Oncology (VHIO)
Barcelona, Spain

Agenda

Welcome and introduction
Stephen V Liu

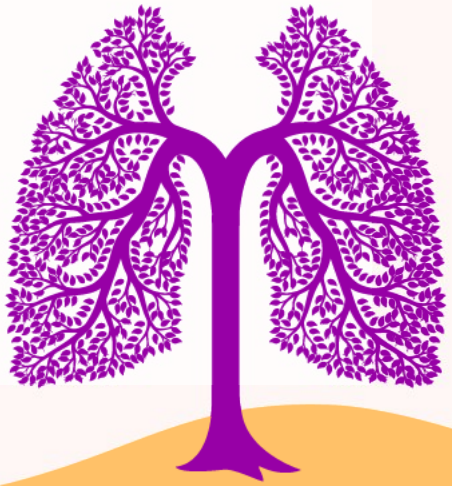
Optimising the patient journey: from lung cancer detection to biomarker testing
Stephen V Liu, Lara Pijuan

Evolving treatment decisions in resectable NSCLC
Martin Reck, Nasser Altorki

A look at the patient journey through the lens of the nurse
Alba Silverio Pons

Panel discussion and Q&A
All

Closing remarks
Stephen V Liu



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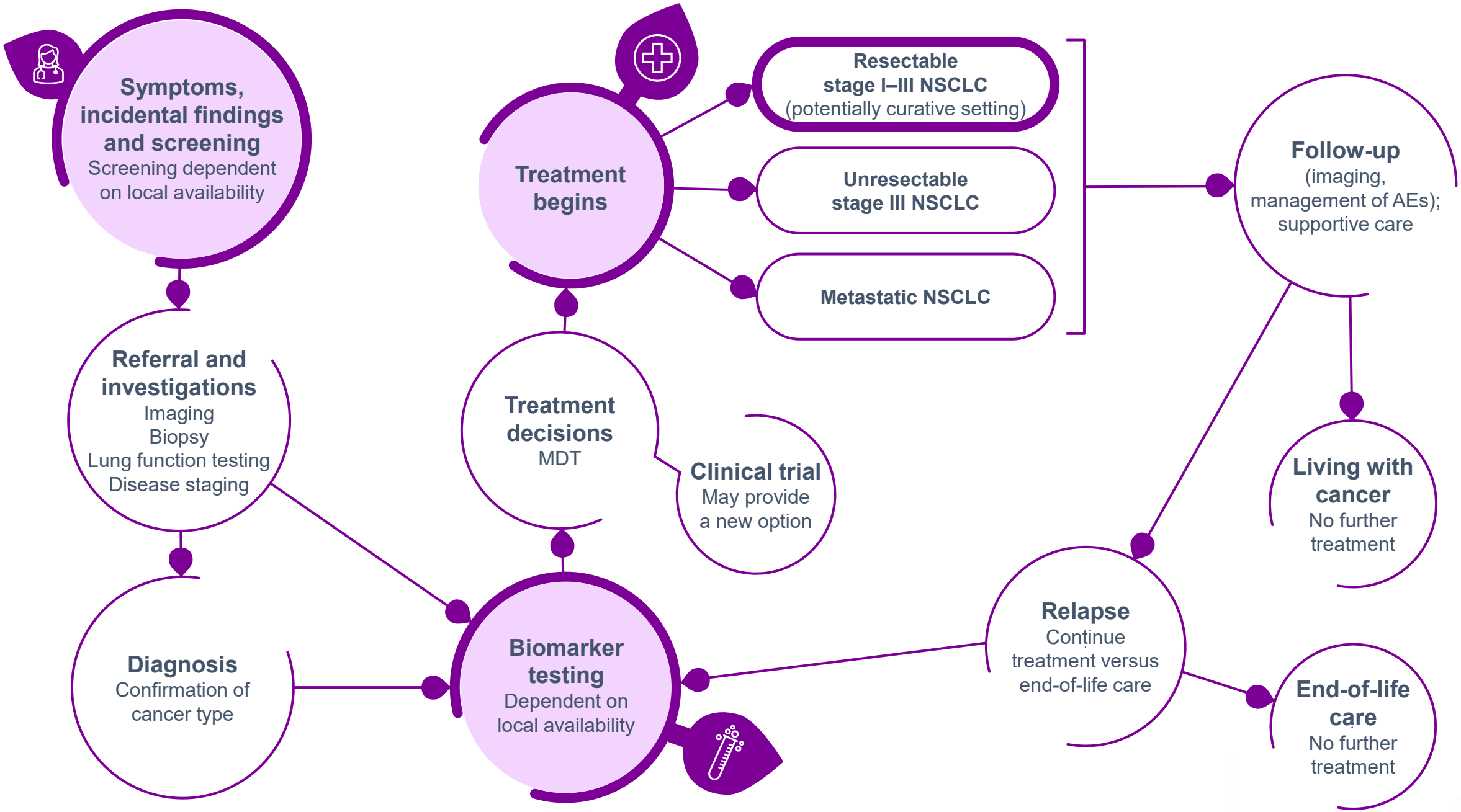
Scan the QR code on the right
Select the session name:
REDEFINING LUNG CANCER TOGETHER:
A NEW ERA FOR PATIENTS

Online attendees

Type in the chat box next to the streaming video



American Cancer Society: Lung Cancer. Available at: https://www.cancer.org/cancer/types/lung-cancer.html
Cancer Research UK: Lung Cancer. Available at: https://www.cancerresearchuk.org/about-cancer/lung-cancer

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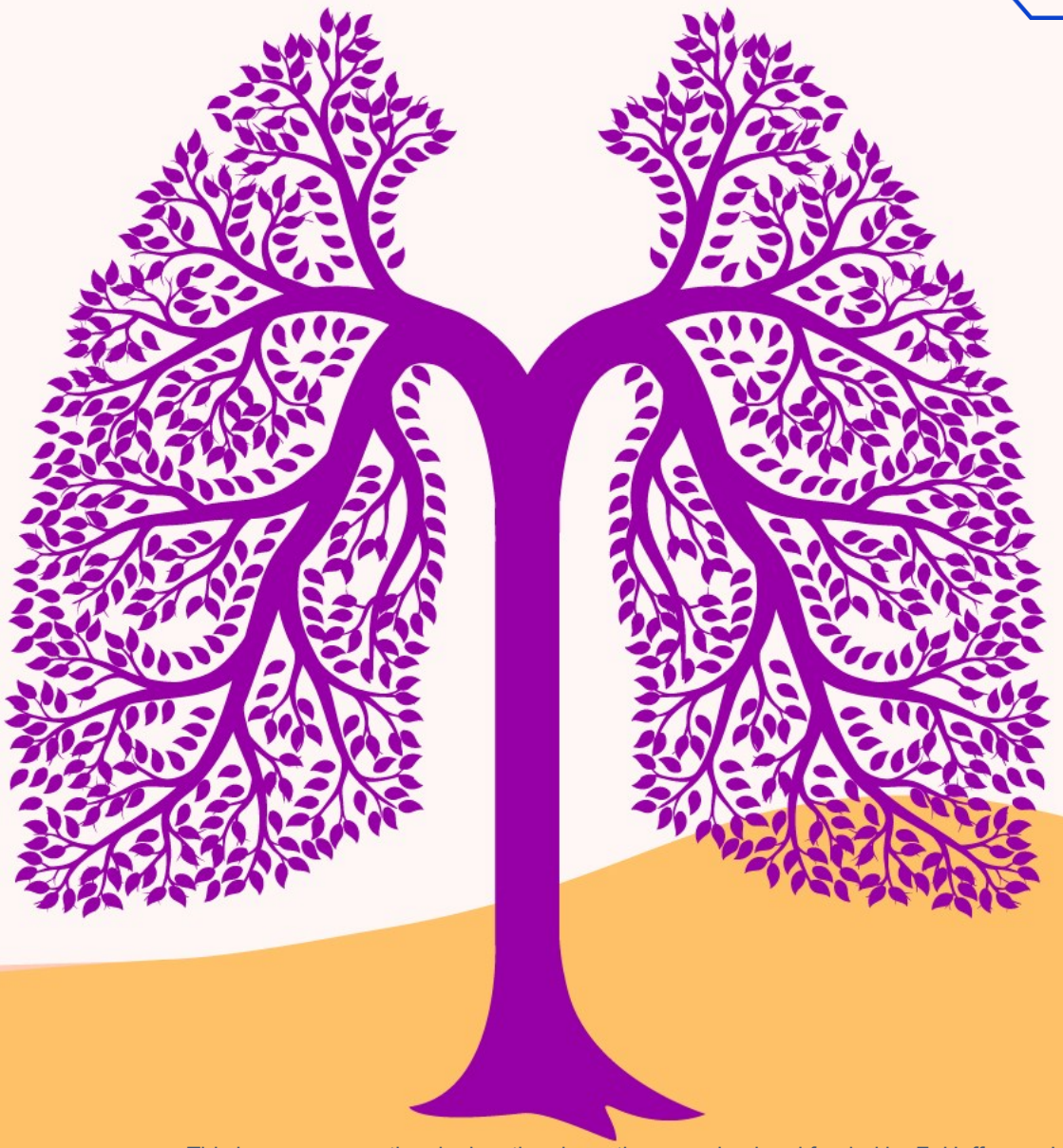
Redefining Lung Cancer **Together:** A New Era for Patients



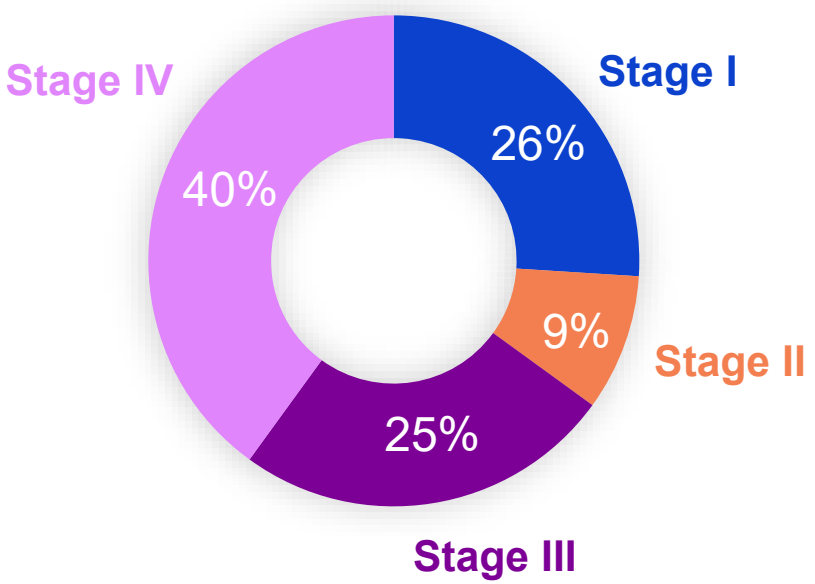
Stephen V Liu
Medical Oncologist
Georgetown University, USA

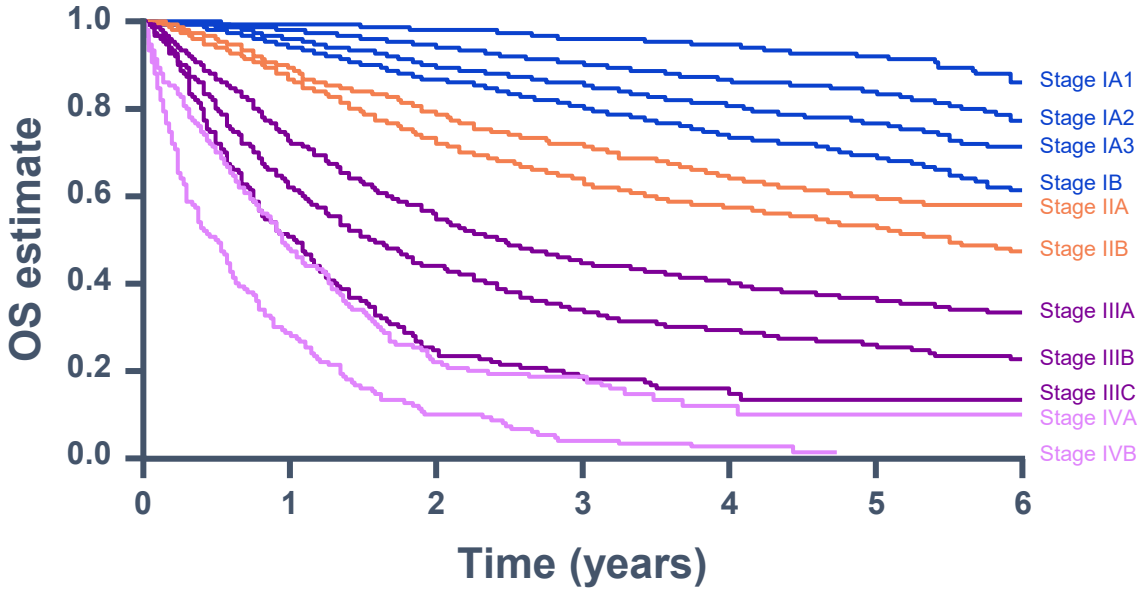
Lara Pijuan
Cytopathologist and Pulmonary Pathologist
Hospital Universitari de Bellvitge, Spain

Optimising the patient journey: from lung cancer detection to biomarker testing

Most patients are diagnosed with advanced disease, which is associated with a poorer prognosis

% at diagnosis[1*]





5-year survival[2†]

Stage I	68–92%
Stage II	53–60%
Stage III	13–36%
Stage IV	0–10%

*Published data from: France, Germany, Japan, Italy, Spain, UK and US; †per AJCC 8th edition

1. EpiCast report: NSCLC Epidemiology Forecast to 2025. GlobalData. 2016; 2. Goldstraw, et al. J Thorac Oncol 2016. Figure reprinted from Journal of Thoracic Oncology, Vol 11/ issue 1, Goldstraw et al., The IASLC Lung Cancer Staging Project: Proposals for Revision of the TNM Stage Groupings in the Forthcoming (Eighth) Edition of the TNM Classification for Lung Cancer, Copyright (2016), with permission from Elsevier

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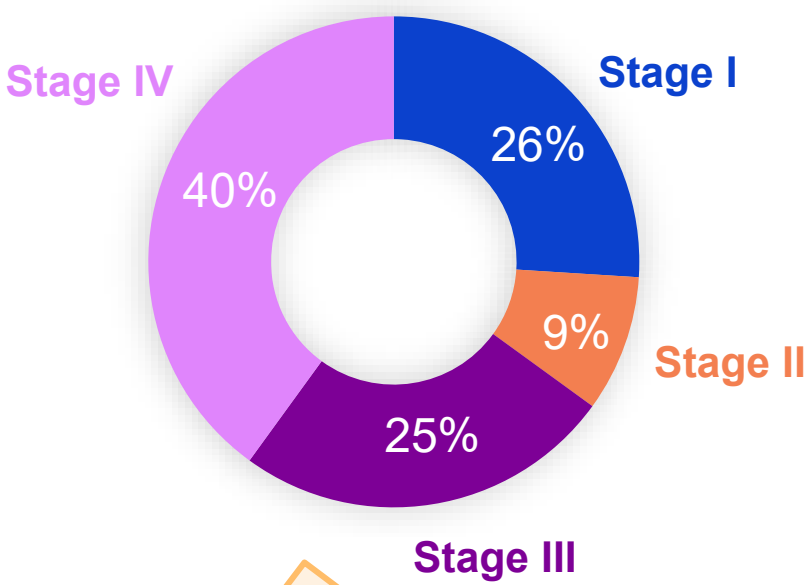
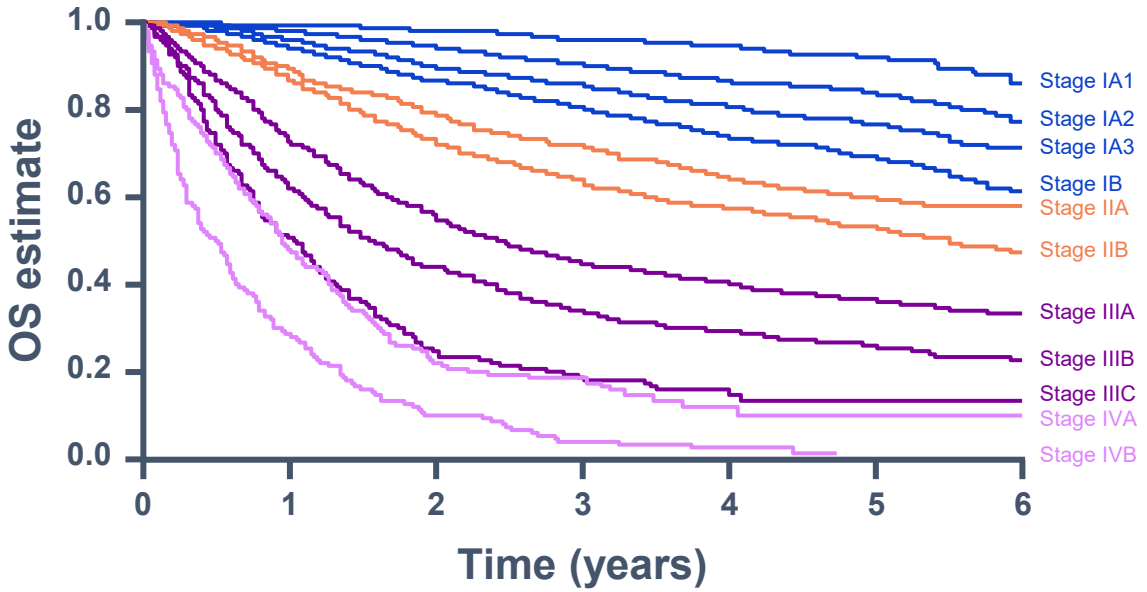


More than 50% of patients are diagnosed with advanced disease

5-year survival[2†]



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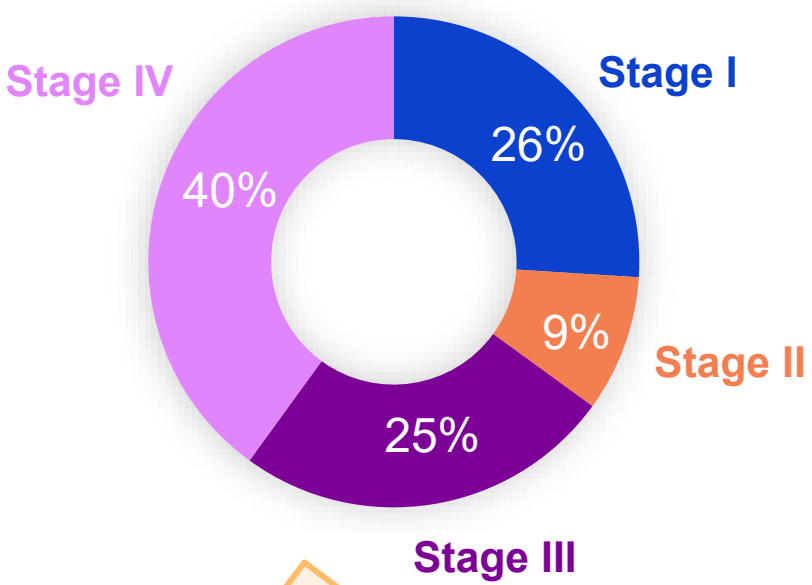

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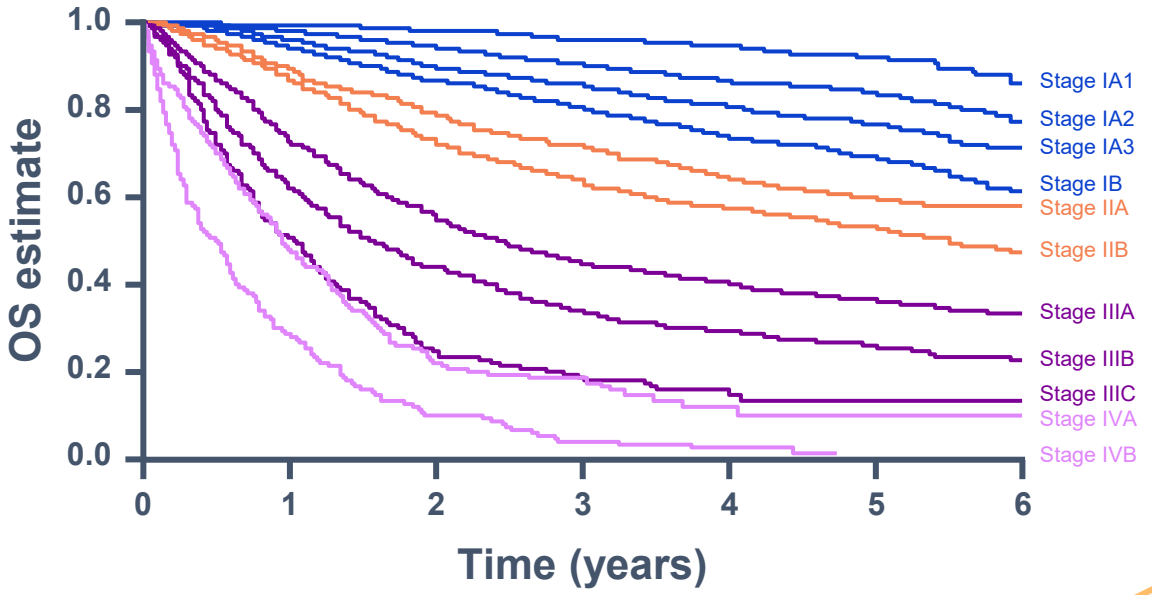

Stage I	68–92%
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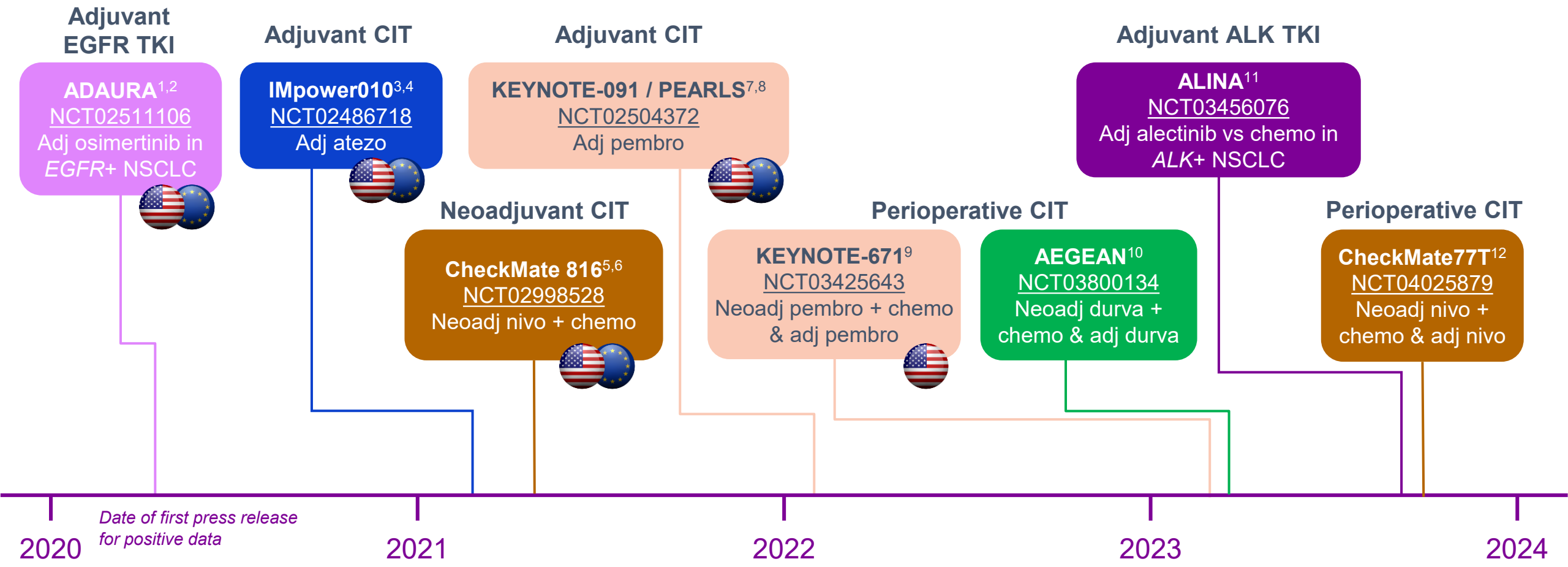
5-year OS rates are lower for patients with more advanced stages of disease

*Published data from: France, Germany, Japan, Italy, Spain, UK and US; †per AJCC 8th edition

1. EpiCast report: NSCLC Epidemiology Forecast to 2025. GlobalData. 2016; 2. Goldstraw, et al. J Thorac Oncol 2016. Figure reprinted from Journal of Thoracic Oncology, Vol 11/ issue 1, Goldstraw et al., The IASLC Lung Cancer Staging Project: Proposals for Revision of the TNM Stage Groupings in the Forthcoming (Eighth) Edition of the TNM Classification for Lung Cancer, Copyright (2016), with permission from Elsevier

Recent phase III positive trials of new therapies in early-stage disease reinforce the benefit of early diagnosis



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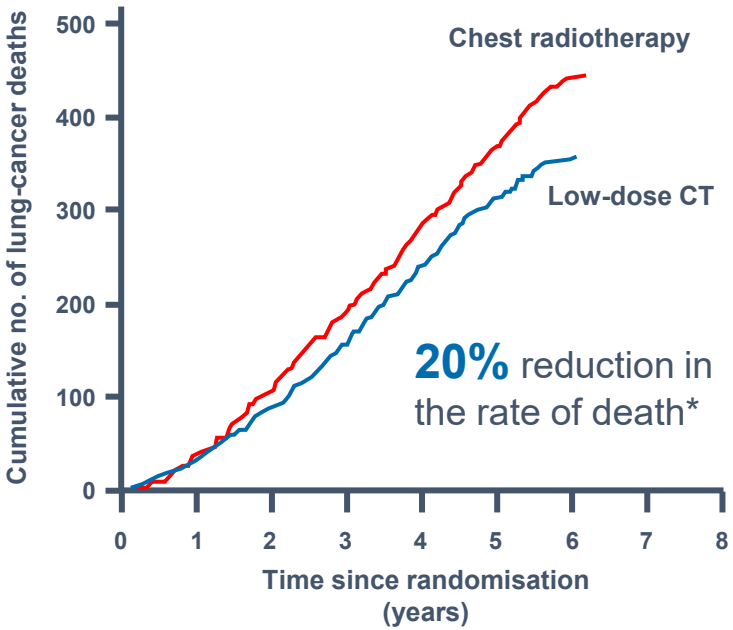
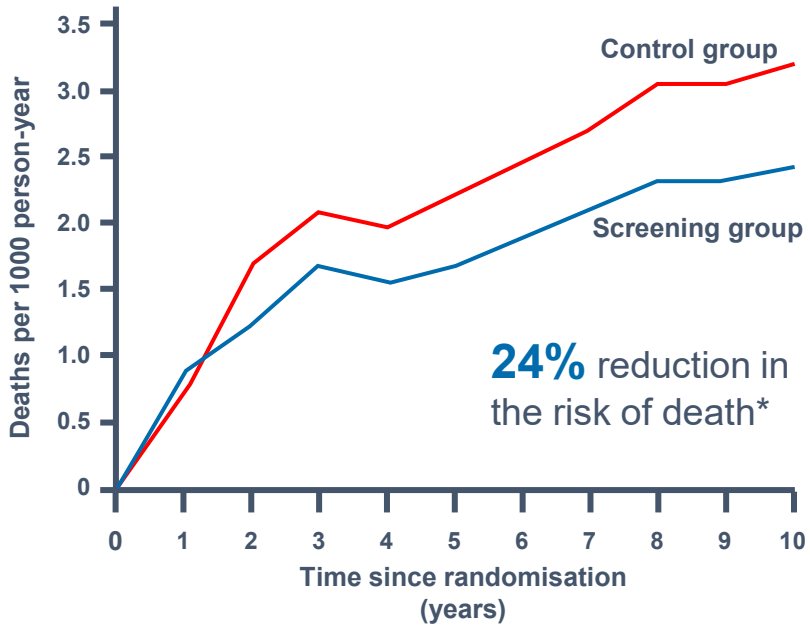
1. US PI TAGRISSO (osimertinib); 2. EMA SmPC TAGRISSO (osimertinib); 3. US PI TECENTRIQ (atezolizumab); 4. EMA SmPC TECENTRIQ (atezolizumab); 5. US PI OPDIVO (nivolumab)
6. EMA SmPC OPDIVO (nivolumab); 7. US PI KEYTRUDA (pembrolizumab); 8. Merck press release (16 October 2023; KEYNOTE-091); 9. Merck press release (16 October 2023; KEYNOTE-671)
10. AstraZeneca press release (09 March 2023; AEGEAN); 11. Roche press release (01 September 2023; ALINA); 12. Bristol Myers Squibb press release (22 September 2023; CheckMate 77T)

Low-dose CT screening can improve lung cancer survival by detecting cancers at an earlier stage, where outcomes are better

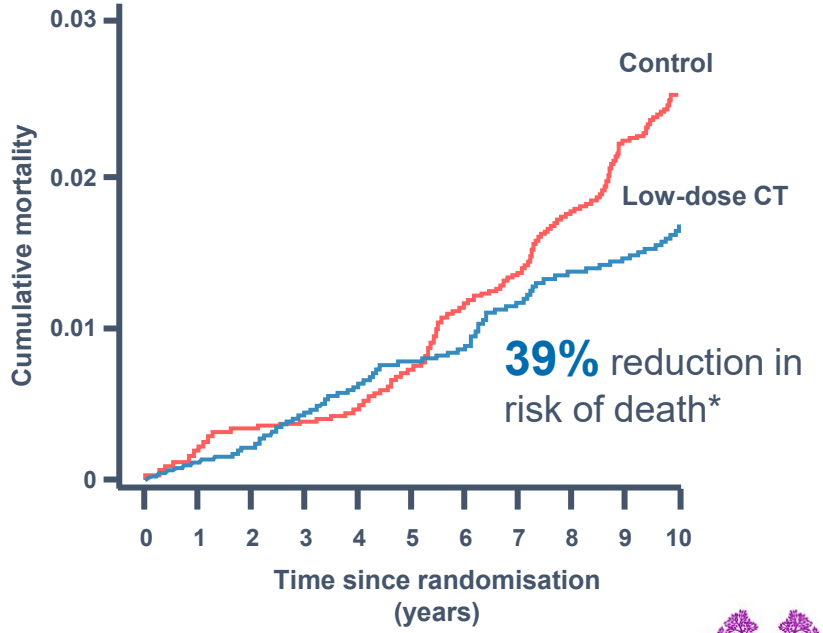
National Lung Screening Trial[1]
>50,000 patients



NELSON[2]
>15,000 patients



MILD[3]
>4,000 patients



*From lung cancer

1. From The New England Journal of Medicine, Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening, Volume 365. Copyright © (2011) Massachusetts Medical Society
2. From The New England Journal of Medicine, de Koning, et al., Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial, Volume 382, Copyright © (2020) Massachusetts Medical Society; 3. Reprinted from Annals of Oncology, Vol 30/ Issue 7, Pastorino et al., Prolonged lung cancer screening reduced 10-year mortality in the MILD trial: new confirmation of lung cancer screening efficacy. Copyright (2019), with permission from Elsevier

Current identification of individuals at increased risk of being diagnosed with lung cancer is based on a wide range of factors

Guidelines for lung cancer screening prioritise people with a history of smoking

USPSTF recommendations:[1]

- Adults aged 50 to 80 years
- A 20 pack-year smoking history
- Currently smoke or have quit within the past 15 years

European evidence (NELSON study):[2]

- Adults aged 50 to 74 years
- A history of >15 cigarettes/day for >25 years or >10 cigarettes/day for >30 years
- Currently smoke or have quit within the past 10 years

USPSTF, United States Preventive Services Task Force

1. US preventative services lung cancer screening recommendations, 2021; 2. de Koning, et al. N Engl J Med 2020; 3. Yang, et al. WCLC 2021; 4. Shum, et al. ASCO 2023

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TALENT study:[3] screening study of 12,011 **high-risk, never smokers in Taiwan**

High detection rate; most patients diagnosed at **stage 0 or 1**

FANSS study:[4] US screening study of 201 **female non-smokers of Asian descent**

High detection rate; all patients detected had ***EGFR*** **mutations**

USPSTF, United States Preventive Services Task Force

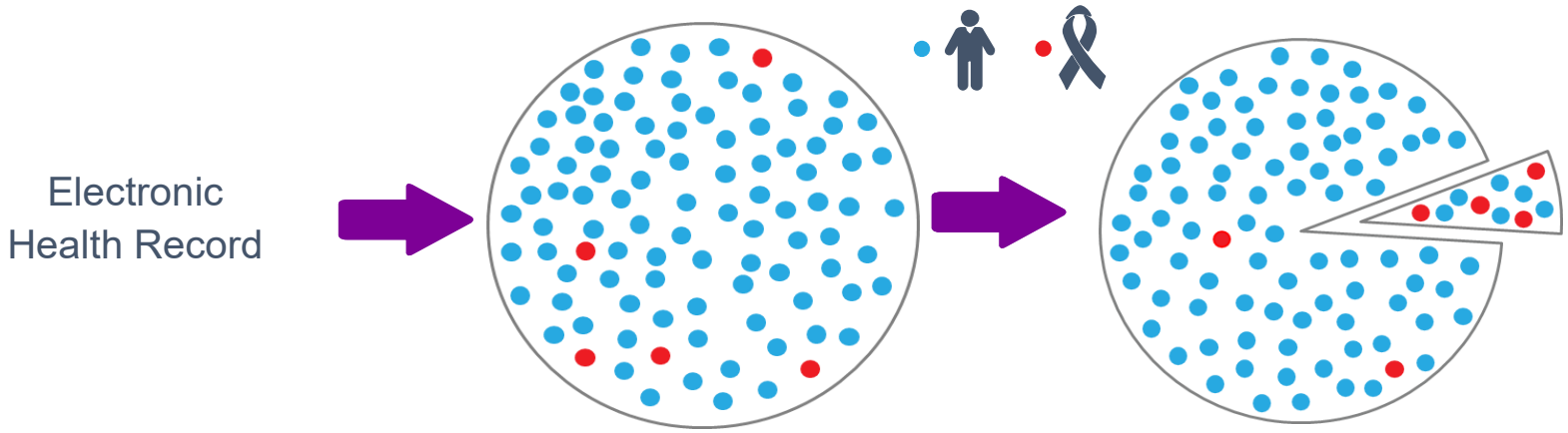
1. US preventative services lung cancer screening recommendations, 2021; 2. de Koning, et al. N Engl J Med 2020; 3. Yang, et al. WCLC 2021; 4. Shum, et al. ASCO 2023

Risk prediction models could improve the effectiveness of lung cancer screening

Lung cancer mortality could be reduced by **identifying people at higher risk of lung cancer** and **offering low dose CT screening**

To do this, a **risk prediction model** would be needed

The model would then need to be **validated** to establish performance, health-economic effectiveness, and equity in different sub-populations

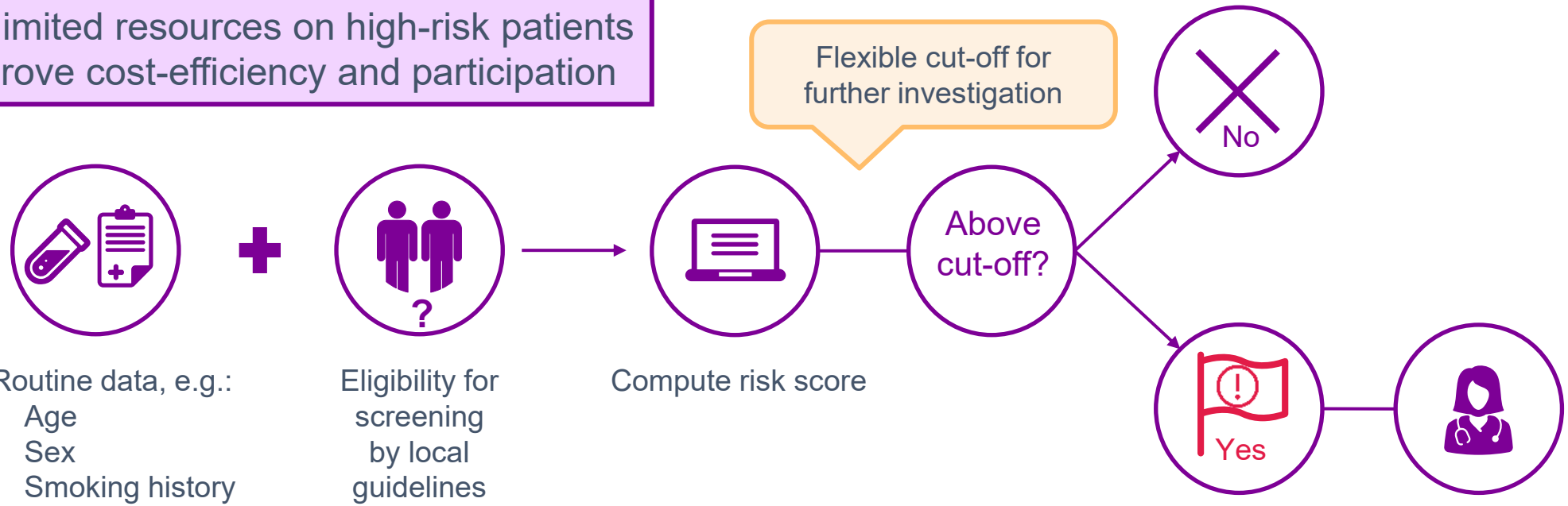


Using a machine-learning approach, enrichment and stratification strategies can help identify populations at higher risk to facilitate efficient lung cancer screening

Kerpel-Fronius, et al. J Thorac Oncol 2022

Machine-learning tools and AI algorithms can act as ‘digital biomarkers’ to rule-in high-risk patients and improve the efficiency of screening

Focus limited resources on high-risk patients to improve cost-efficiency and participation



Rule-in test: individuals flagged by machine learning or artificial intelligence algorithms are referred to a physician for further assessment such as low-dose CT scanning

Exact parameters vary between tools
LLP, Liverpool Lung Project; PLCO, Prostate, Lung, Colorectal, and Ovarian cancer screening trial
1. Morgenstern & Choman. ASCO 2023; 2. Tammemägi, et al. N Engl J Med 2013; 3. Cassidy, et al. Br J Cancer 2008

Machine-learning tools and AI algorithms can act as ‘digital biomarkers’ to rule-in high-risk patients and improve the efficiency of screening

Examples of lung cancer screening algorithms

LungFlag[1] | $PLCO_{m2012}$[2] | LLP[3]

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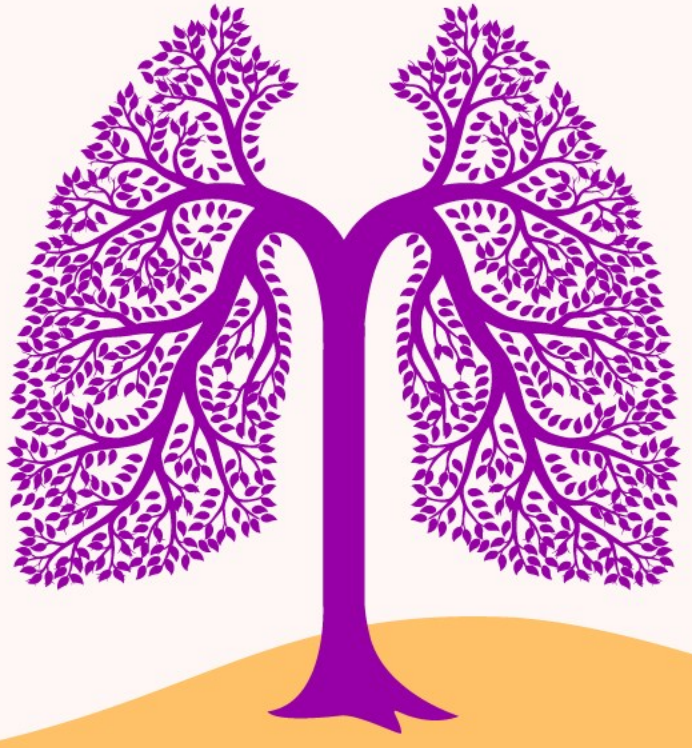
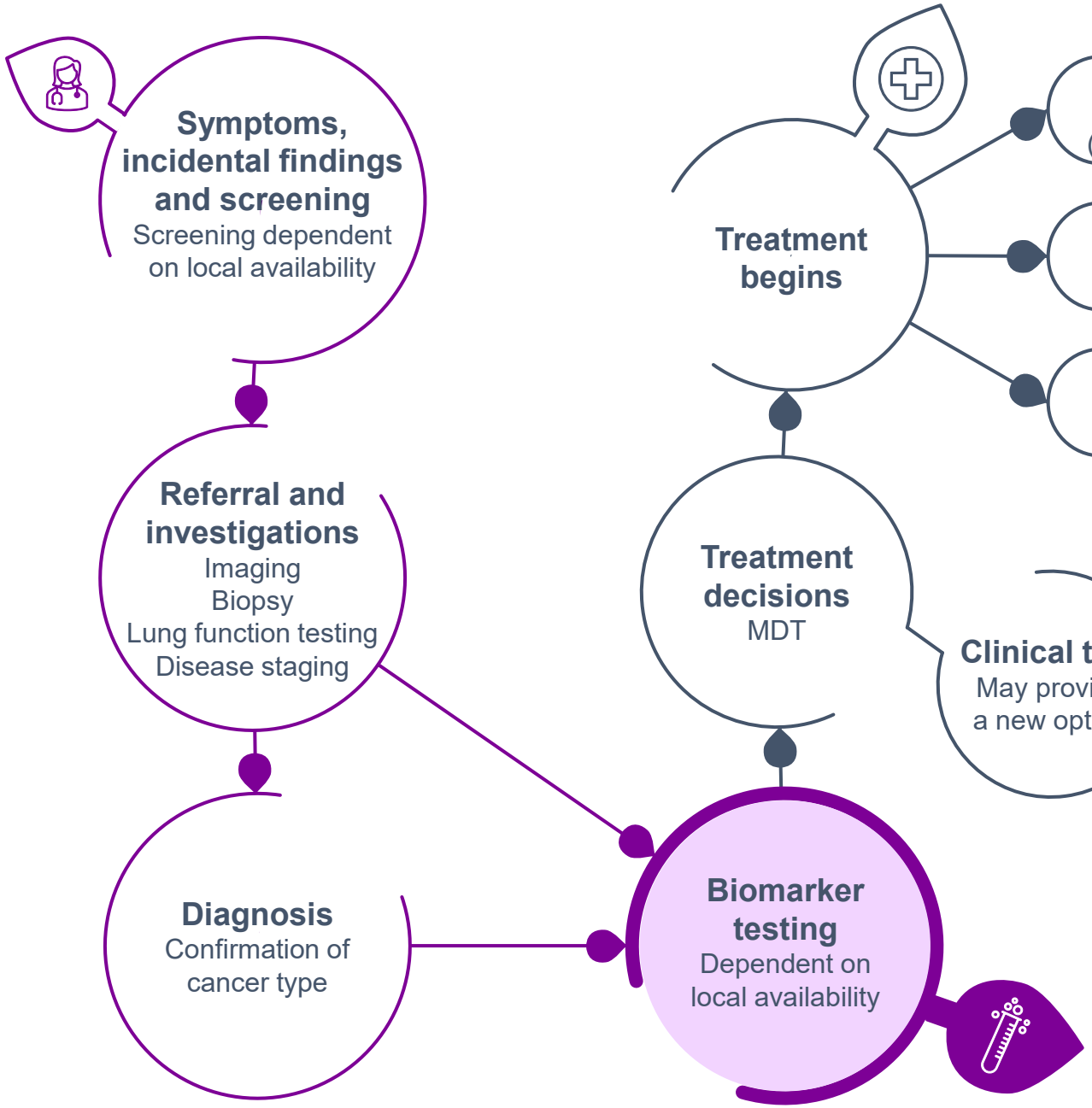
LLP, Liverpool Lung Project; PLCO, Prostate, Lung, Colorectal, and Ovarian cancer screening trial
1. Morgenstern & Choman. ASCO 2023; 2. Tammemägi, et al. N Engl J Med 2013; 3. Cassidy, et al. Br J Cancer 2008

Besides screening, what else is key to optimising the patient journey and what can we learn from the advanced disease setting?





Biomarker testing should be performed **before initiation of systemic treatment**

Biomarker testing*

Including:

CIT
- PD-L1

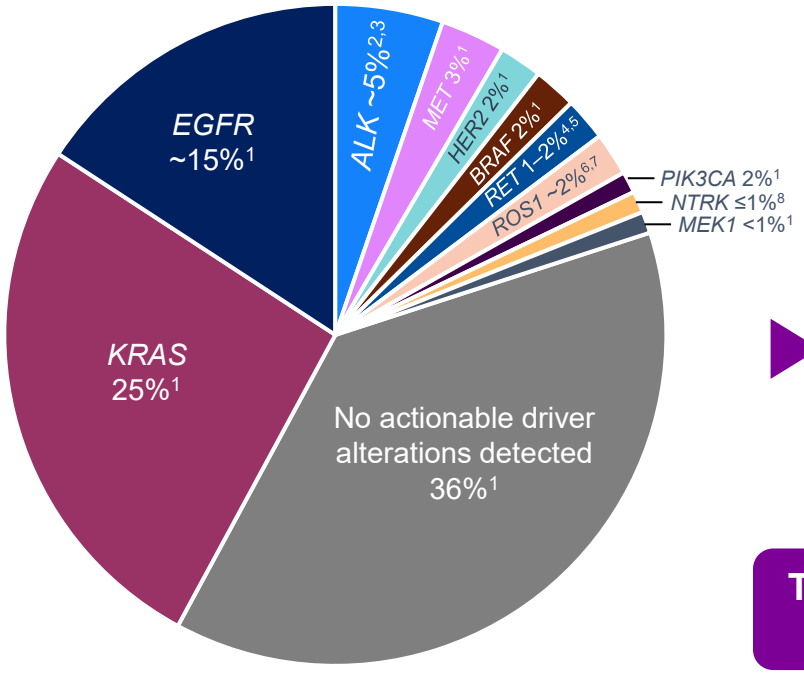
Targeted therapy
- *EGFR*
- *ALK*
- Other targetable alterations

*There are several considerations in deciding which biomarkers to test for, including stage of disease and histology

American Cancer Society: Lung Cancer. Available at: https://www.cancer.org/cancer/types/lung-cancer.html
Cancer Research UK: Lung Cancer. Available at: https://www.cancerresearchuk.org/about-cancer/lung-cancer
Hendriks, et al. Ann Oncol 2023a; Hendriks, et al. Ann Oncol 2023b; Remon, et al. Ann Oncol 2023

In advanced NSCLC, the development of multiple targeted therapies has revolutionised the treatment landscape

Oncogenic drivers in lung cancer



Targeting actionable driver alterations

Figure adapted from Pakkala & Ramalingam. JCI Insight 2018

Approved drugs for each biomarker[9]

ALK
- Alectinib
- Brigatinib
- Ceritinib
- Crizotinib
- Lorlatinib

EGFR
- Erlotinib
- Afatinib
- Dacomitinib
- Gefitinib
- Osimertinib
- Erlotinib + bevacizumab
- Erlotinib + ramucirumab

NTRK
- Entrectinib▼
- Larotrectinib

ROS1
- Entrectinib▼
- Crizotinib

BRAF V600E
- Dabrafenib + trametinib

RET
- Pralsetinib▼
- Selpercatinib

KRAS G12C
- Sotorasib
- Adagrasib

MET
- Capmatinib
- Tepotinib

HER2
- Trastuzumab deruxtecan

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Please report suspected adverse reactions to the National Health Authority in your country and/or Roche Safety contact in your country (www.roche.com and select your country)

1. Pakkala & Ramalingam. JCI Insight 2018; 2. Barlesi, et al. Lancet 2016; 3. Tian, et al. Lung Cancer 2017; 4. Qiu, et al. Sci Rep 2020; 5. Gainor & Shaw. Oncologist 2013
6. Bergethon, et al. J Clin Oncol 2012; 7. Dugay, et al. Oncotarget 2017; 8. Farago, et al. JCO Precis Oncol 2018, 9. US PIs and/or EMA SmPCs for individual drugs

NSCLC has important genomic and immunological biomarkers that directly affect treatment decisions

Lung driver mutations

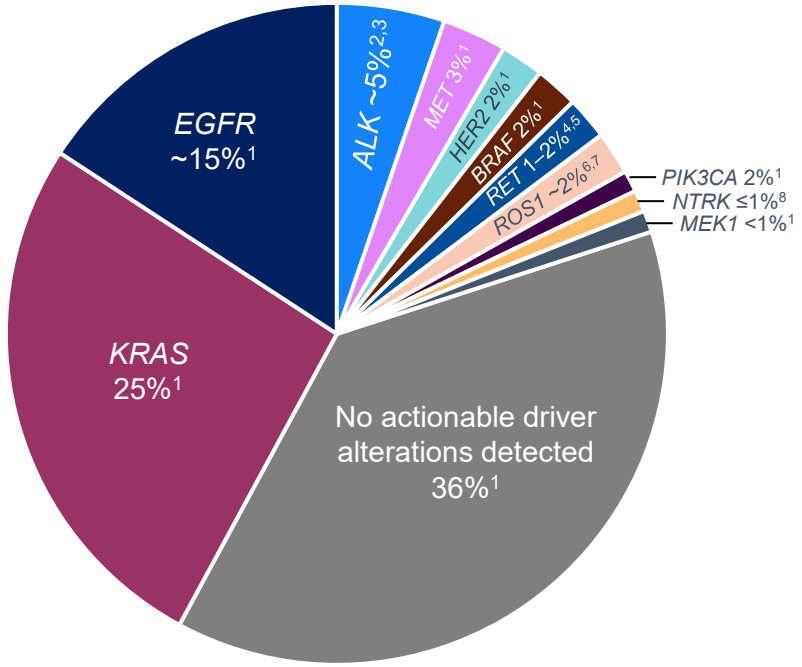
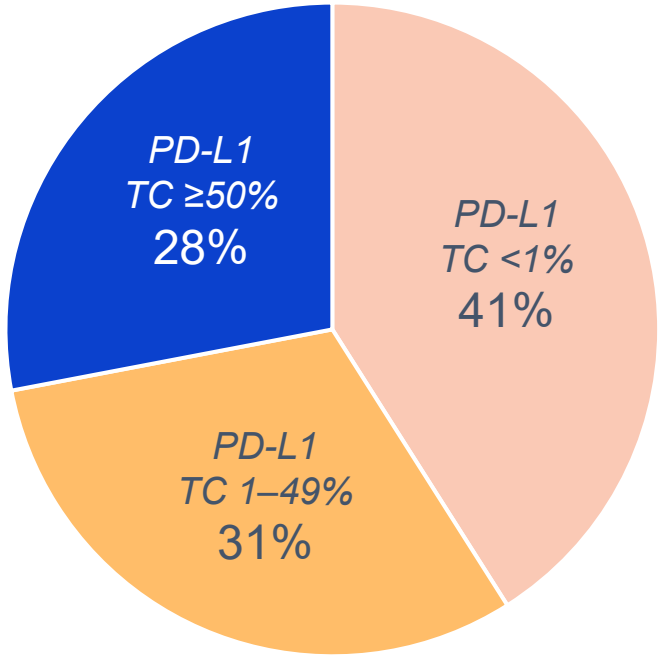


Figure adapted from Pakkala & Ramalingam. JCI Insight 2018

PD-L1 expression[9–15] (expression on TCs*)



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*PD-L1 high is TC/TPS ≥50%, PD-L1 low is TC/TPS 1–49%, PD-L1 negative is TC/TPS <1%

1. Pakkala & Ramalingam. JCI Insight 2018; 2. Barlesi, et al. Lancet 2016; 3. Tian, et al. Lung Cancer 2017; 4. Qiu, et al. Sci Rep 2020; 5. Gainor & Shaw. Oncologist 2013
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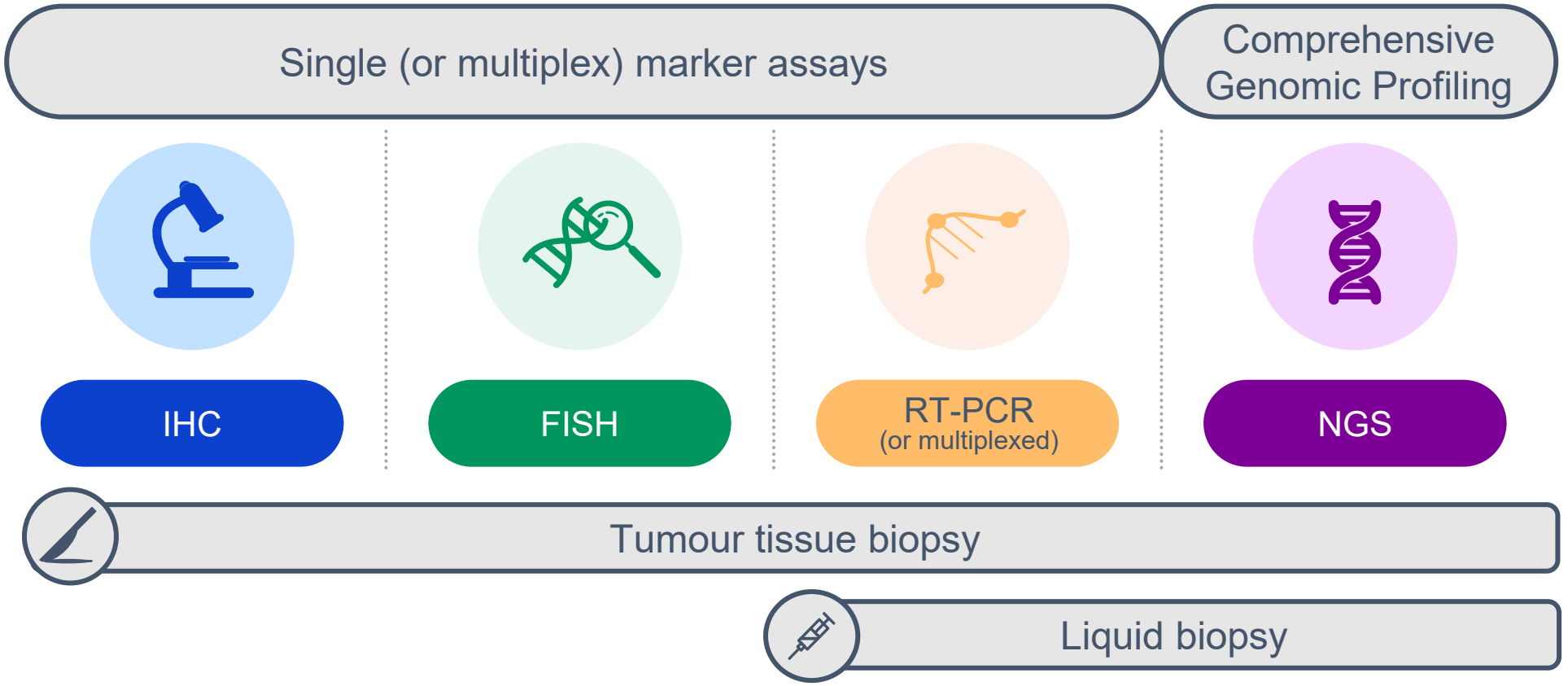
11. Forde, et al. N Engl J Med 2022; 12. Kowanetz, et al. AACR 2018; 13. Gandhi, et al. N Engl J Med 2018; 14. Paz-Ares, et al. N Engl J Med 2018; 15. Paz-Ares, et al. Lancet Oncol 2021

Tissue biomarker testing is the gold standard, but liquid biopsies are also an option in advanced NSCLC



Lindeman, et al. J Thorac Oncol 2018; Arriola, et al. JCO Precis Oncol 2023

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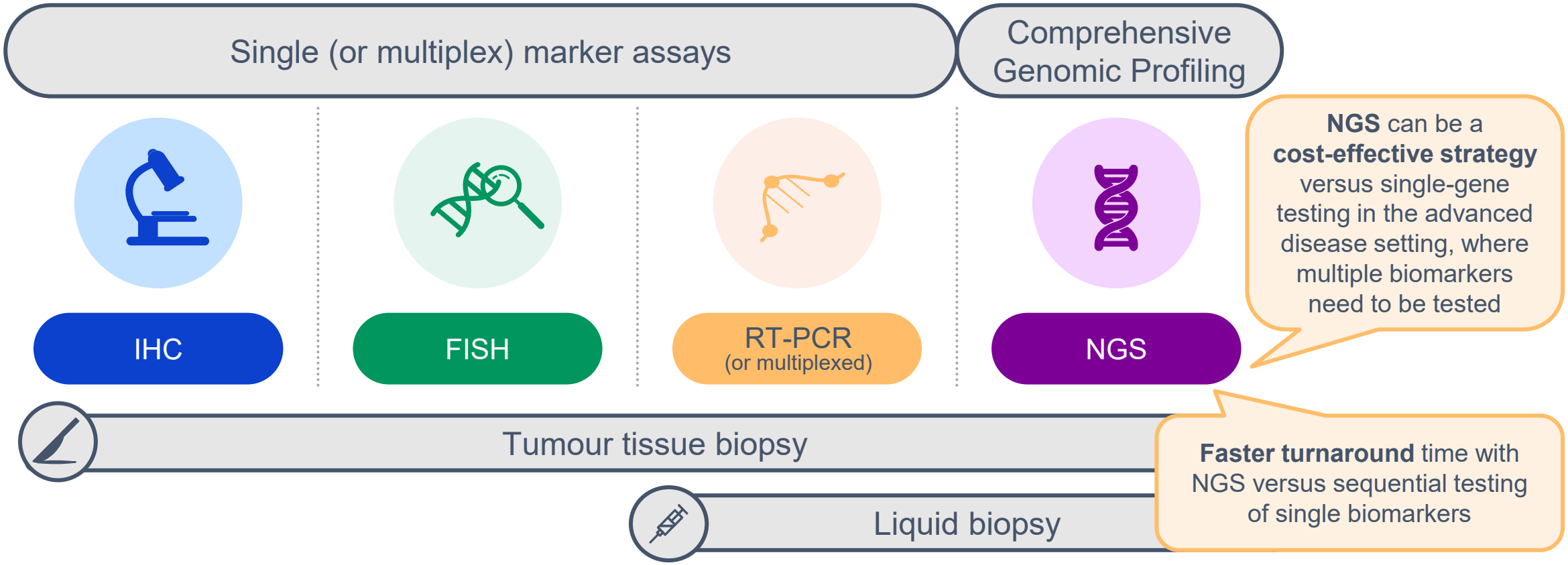


Lindeman, et al. J Thorac Oncol 2018; Arriola, et al. JCO Precis Oncol 2023

Blood-based NGS has advantages and disadvantages compared with tissue biopsy testing

- **Less invasive** than tissue biopsy procedures[1]
- Clinical utility in **patients who are unfit for biopsy** or **with insufficient tissue** sample[1]
- **Faster turnaround time**[2]
- Potential tool for **early diagnosis, monitoring** of treatment response and **resistance**[1,3]

- Risk of missed biomarker, due to **lower sensitivity** than tissue-based testing and reliance on ctDNA shedding into the blood[4–7]
- **Cannot** be used for **initial** histologic **diagnosis** or **PD-L1** testing[7,8]

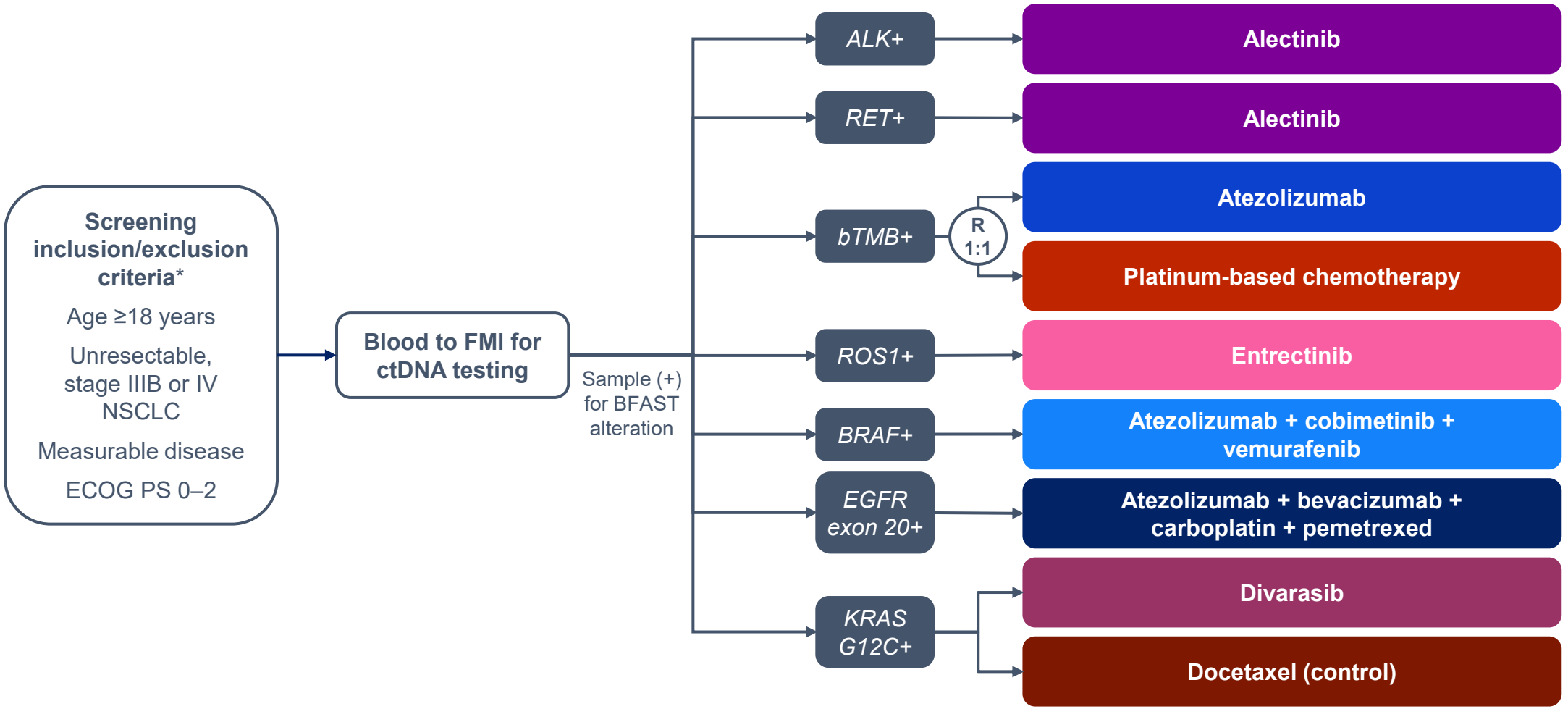
Blood-based NGS is more optimal in advanced disease; disease burden is associated with the amount of tumour DNA shed into the blood, which is lower in early-stage NSCLC, and may be below the detection limit of liquid assays[4–7]

ctDNA, circulating tumour DNA

1. Diaz Jr, et al. J Clin Oncol 2014; 2. Raez, et al. Clin Lung Cancer 2023; 3. Martins, et al. Genes (Basel) 2021; 4. Singh. J Mol Diagn 2020; 5. Chen & Zhao. Human Genomics 2019
6. Xie, et al. BMC Cancer 2023; 7. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for **Non-Small Cell Lung Cancer V.3.2023**.©

8. Hita-Millan, et al. J Pers Med 2021

The BFAST trial is investigating multiple therapies in 1L metastatic NSCLC based on blood-based NGS testing



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*All cohorts have additional, treatment-specific inclusion/exclusion criteria
Gadgeel, et al. ESMO 2019; Dziadziuszko, et al. J Thorac Oncol 2021; https://clinicaltrials.gov/study/NCT03178552

The data from the *ALK*+ cohort of the BFAST study were consistent with those from the tissue-based ALEX trial

BFAST *ALK*+ cohort[1,2]

- BFAST identified a cohort of 119 patients with advanced NSCLC who had *ALK*+ disease based on blood-based NGS testing only
- Patients received standard-of-care 1L treatment with alectinib
- **Primary endpoint: investigator-assessed ORR**

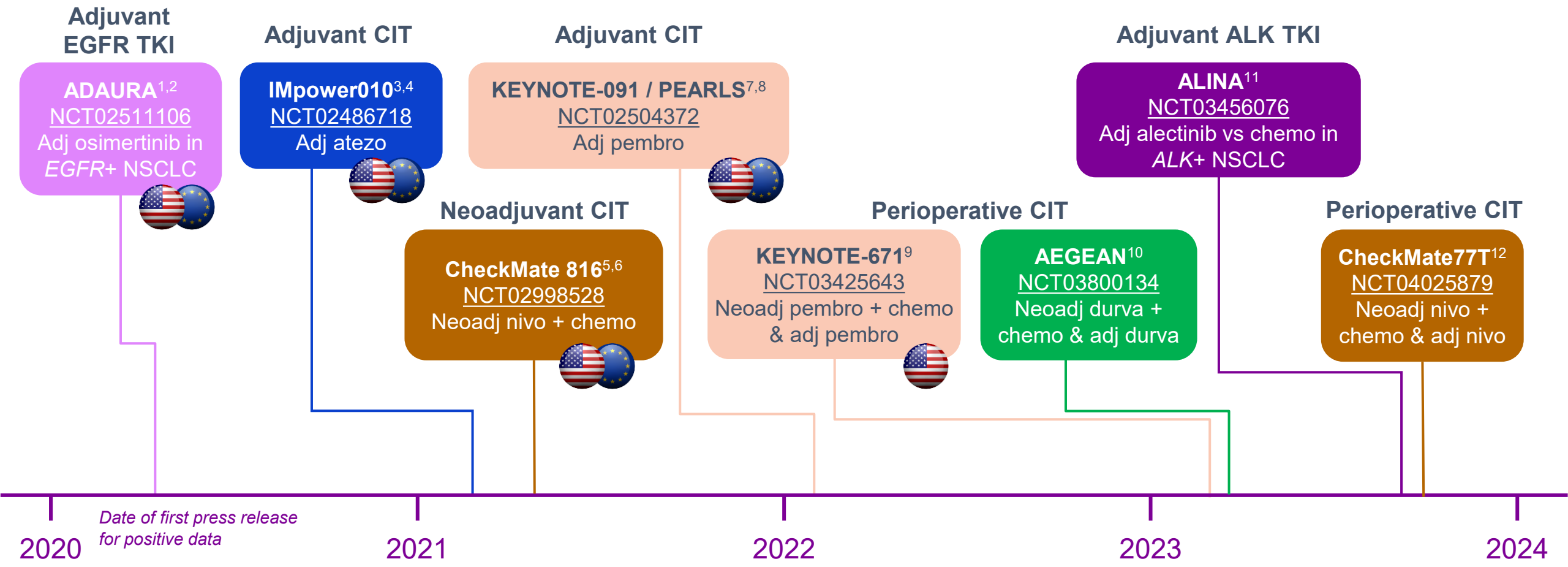
Efficacy results in the BFAST *ALK*+ cohort (N=87):

89.7%	**33.0 months**	**35.1 months**
investigator-assessed objective response rate	median progression-free survival	median duration of response

Data were consistent with those seen in the ALEX study,[3] in which patients were identified using tissue-based testing

1. Dziadziuszko, et al. J Thorac Oncol 2021; 2. Gadgeel, et al. ESMO 2023; 3. Mok, et al. ESMO 2019

The evolution of the treatment landscape in the early-stage setting means that biomarker testing is now needed



The content of this symposium may include scientific information about experimental or investigational compounds, indications and services that are not yet approved in the EU

1. US PI TAGRISSO (osimertinib); 2. EMA SmPC TAGRISSO (osimertinib); 3. US PI TECENTRIQ (atezolizumab); 4. EMA SmPC TECENTRIQ (atezolizumab); 5. US PI OPDIVO (nivolumab)
6. EMA SmPC OPDIVO (nivolumab); 7. US PI KEYTRUDA (pembrolizumab); 8. Merck press release (16 October 2023; KEYNOTE-091); 9. Merck press release (16 October 2023; KEYNOTE-671)
10. AstraZeneca press release (09 March 2023; AEGEAN); 11. Roche press release (01 September 2023; ALINA); 12. Bristol Myers Squibb press release (22 September 2023; CheckMate 77T)

Biomarker testing should be performed before initiation of systemic therapy in early-stage NSCLC

Who to test	When to test	What to test	How to test
All patients with resectable NSCLC	Before any systemic therapy is initiated	PD-L1 *EGFR* *ALK*	PD-L1: IHC *EGFR*: PCR / NGS *ALK*: IHC / FISH / PCR / NGS

- A good collaboration between **pulmonologists** and **pathologists** would be key to optimising biopsy procedures to ensure **a large enough sample** with enough **good-quality tumour tissue**
  - Biomarker testing can be performed on the **diagnostic biopsy** and/or the **surgical resection sample,** although the small sample size of the diagnostic biopsy can impact the feasibility and quality of testing
- Patients with *EGFR*+ or *ALK*+ NSCLC are less likely to benefit from immunotherapy

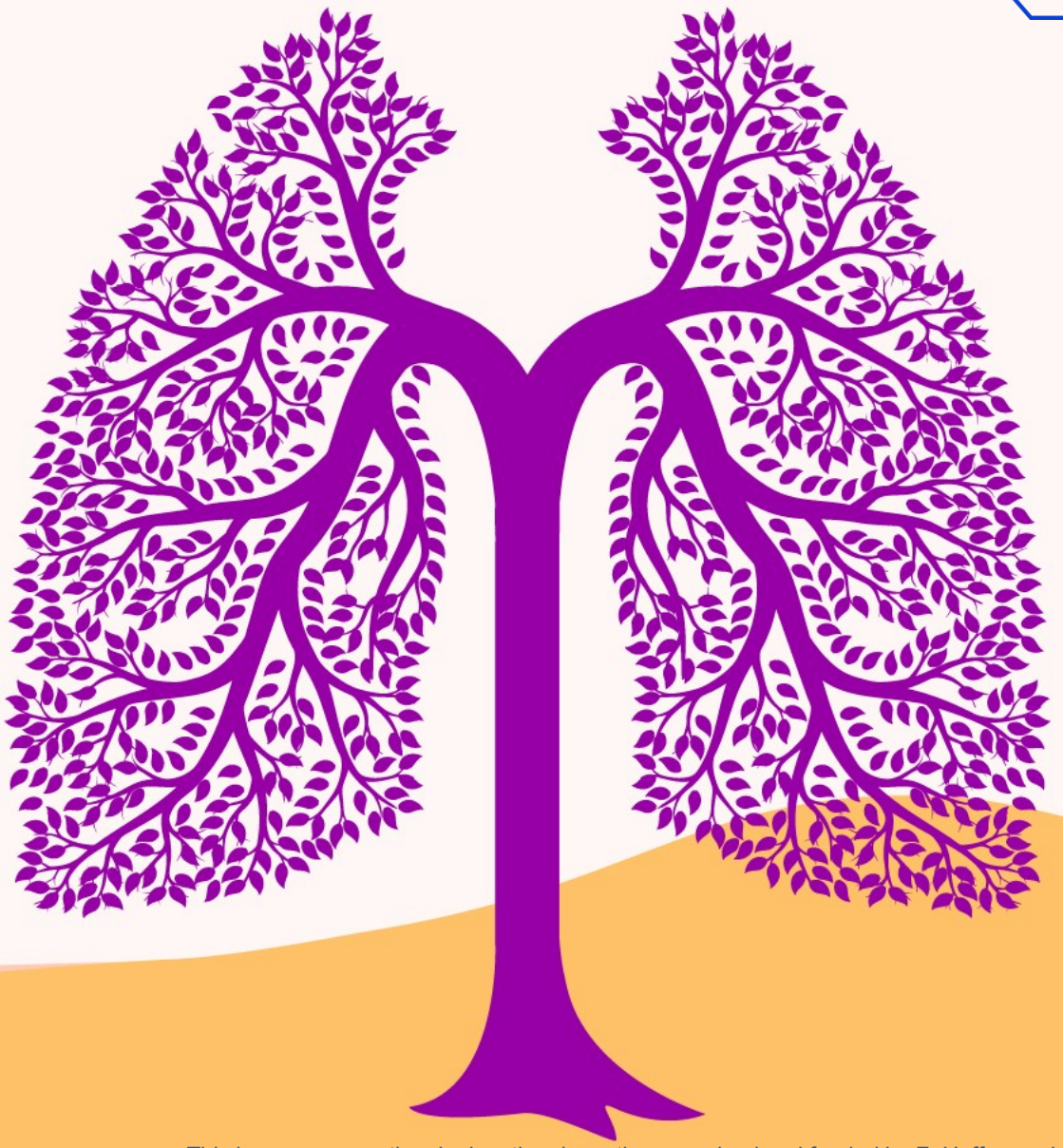
Summary

- **Early diagnosis** of lung cancer correlates with **better prognosis**;[1] machine learning and AI tools are being developed to identify high-risk patients and improve screening[2,3]
- Biomarker testing is a key stage in the patient journey and helps inform treatment decisions; it should be performed before initiation of systemic therapy in early-stage NSCLC[4–6]
  - **Advanced disease:** guidelines recommend screening for multiple biomarkers; **blood-based NGS** is a good option in this setting[5,6]
  - **Early-stage disease:** recommended testing for **PD-L1, *EGFR*** and ***ALK***, using **tissue-based testing**[6]
- **Blood-based NGS is more optimal in advanced disease** as tumour DNA shedding is lower in early-stage disease, and may be below the detection limit of liquid assays[7,8]

1. Goldstraw, et al. J Thorac Oncol 2016; 2. Kerpel-Fronius, et al. J Thorac Oncol 2022; 3. Morgenstern & Choman. J Clin Oncol 2023; 4. Pakkala & Ramalingam. JCI Insight 2018
5. Planchard, et al. Ann Oncol 2018; 6. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for **Non-Small Cell Lung Cancer V.3.2023**.© National Comprehensive Cancer Network, Inc. 2023. All rights reserved. Accessed 17 October 2023. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way
7. Chen & Zhao. Human Genomics 2019; 8. Singh. J Mol Diagn 2020

ESMO 2023 Industry Satellite Symposium

Redefining Lung Cancer **Together:** A New Era for Patients



Martin Reck

Pulmonologist
LungenClinic
Großhansdorf, Germany

Nasser Altorki

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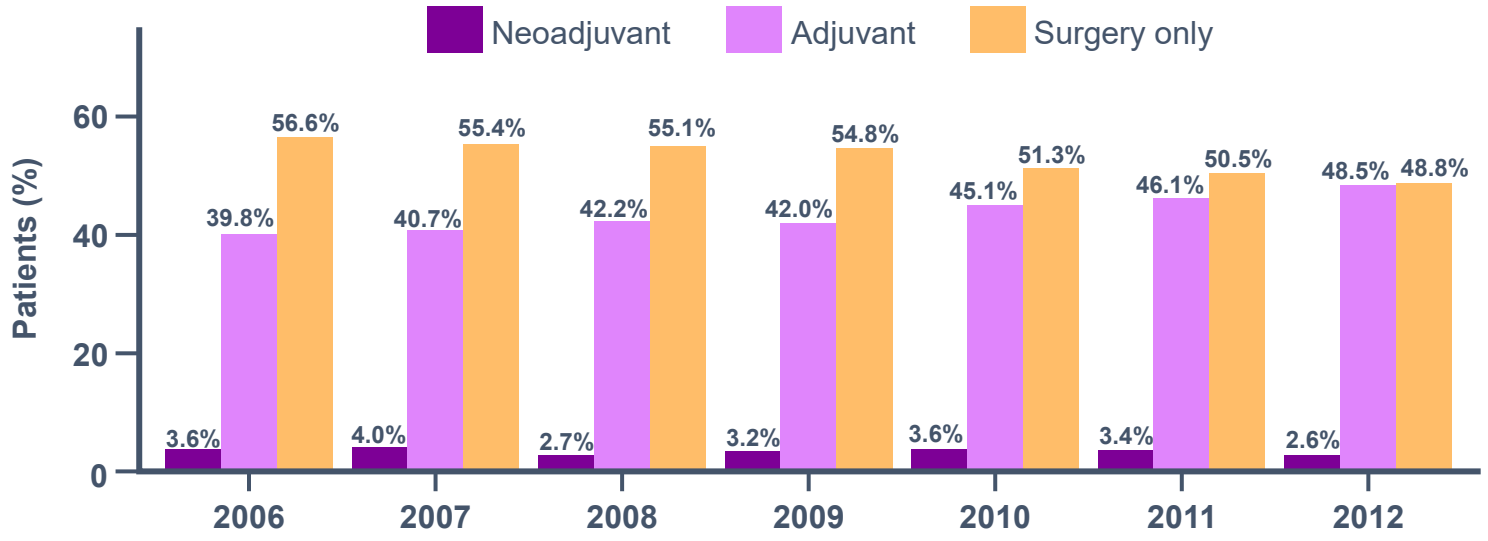
New York, NY, USA

Evolving treatment decisions in resectable NSCLC

Real-world data: not all patients receive systemic therapy and adjuvant chemotherapy used to be more commonly used

Systemic therapy amongst patients undergoing surgery

National Cancer Database 2006–2012 (US patients)[1]



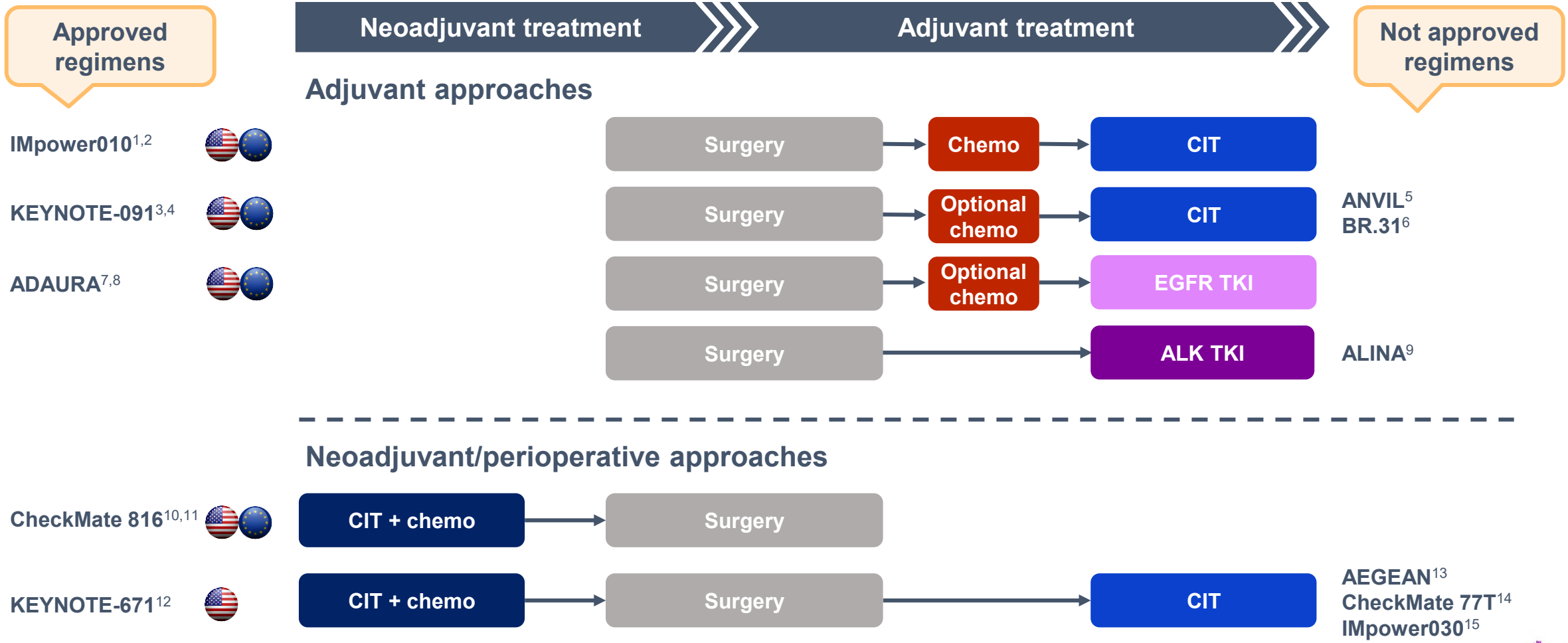
	Stage II	Stage III
Surgery only	57.4%	44.9%
Neoadjuvant chemotherapy	2.4%	5.0%
Adjuvant chemotherapy	40.2%	50.1%

Many patients undergoing surgery have received no systemic therapy[1,2]

Historically adjuvant chemotherapy has been more extensively used, than neoadjuvant chemotherapy[1,2]

1. MacLean, et al. Oncotarget 2018; 2. Lee, et al. ESMO 2021

Various treatment strategies are under investigation in early-stage NSCLC

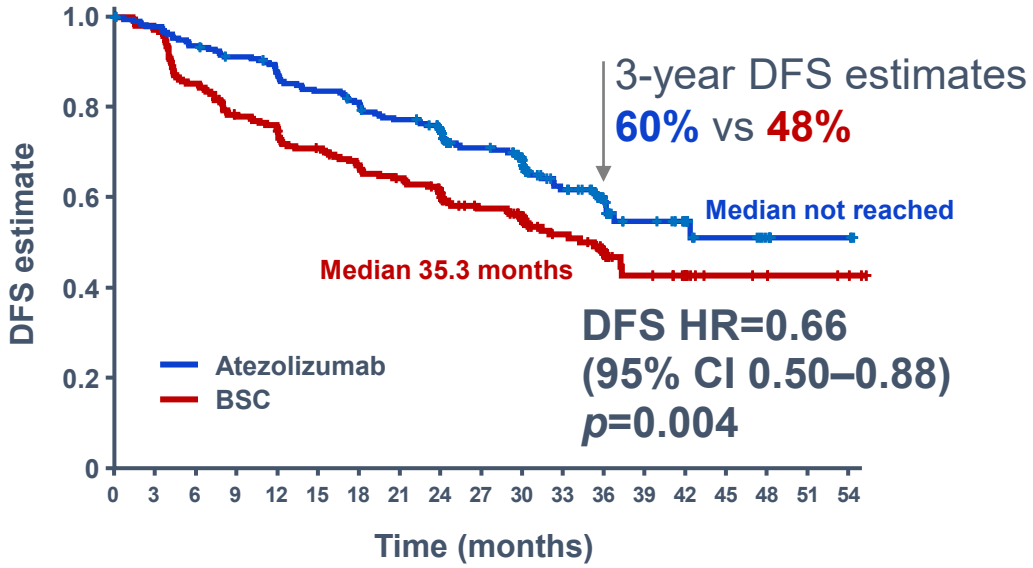


1. US PI TECENTRIQ (atezolizumab); 2. EMA SmPC TECENTRIQ (atezolizumab); 3. US PI KEYTRUDA (pembrolizumab); 4. Merck press release (16 October 2023; KEYNOTE-091)
5. https://www.clinicaltrials.gov/study/NCT02595944; 6. https://clinicaltrials.gov/study/NCT02273375; 7. US PI TAGRISSO (osimertinib); 8. EMA SmPC TAGRISSO (osimertinib)
9. Solomon, et al. ESMO 2023; 10. US PI OPDIVO (nivolumab); 11. EMA SmPC OPDIVO (nivolumab); 12. Merck press release (16 October 2023; KEYNOTE-671)
13. AstraZeneca press release (09 March 2023; AEGEAN); 14. Bristol Myers Squibb press release (22 September 2023; CheckMate 77T); 15. https://www.clinicaltrials.gov/study/NCT03456063

IMpower010: DFS benefit and a positive OS trend observed with atezolizumab in the PD-L1 TC ≥1%, stage II–IIIA population

DFS in PD-L1 TC ≥1%, stage II–IIIA NSCLC (primary endpoint)[1,2]

(data cut-off: 21 January 2021;
median follow-up: 32.8 months)

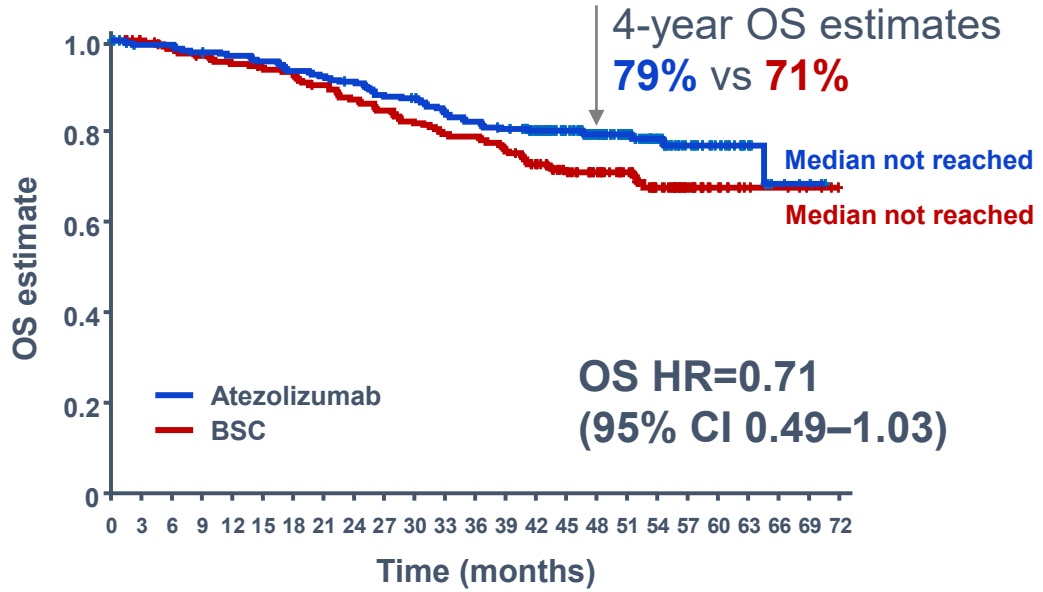


No. at risk

Atezolizumab	248	235	225	217	206	198	190	181	159	134	111	76	54	31	22	12	8	3	3
BSC	228	212	186	169	160	151	142	135	117	97	80	59	38	21	14	7	6	4	3

OS in PD-L1 TC ≥1%, stage II–IIIA NSCLC[3,4]

(data cut-off: 18 April 2022;
median follow-up: 46 months)



No. at risk

Atezolizumab	248	241	241	237	234	231	225	222	218	210	208	200	195	190	172	140	116	83	56	37	23	12	5	3	NE
BSC	228	220	214	210	205	201	198	192	185	180	172	167	166	158	140	110	95	72	49	27	15	8	7	4	NE

These data led to approvals in the USA, China, Japan, and other countries*

First immunotherapy to report OS data with ~4 years of median follow-up in resectable NSCLC

*In the EU, atezolizumab as monotherapy is indicated as adjuvant treatment following complete resection and platinum-based chemotherapy for adult patients with NSCLC with a high risk of recurrence whose tumours have PD-L1 expression on ≥50% of tumour cells and who do not have *EGFR* mutant or *ALK*-positive NSCLC[5]

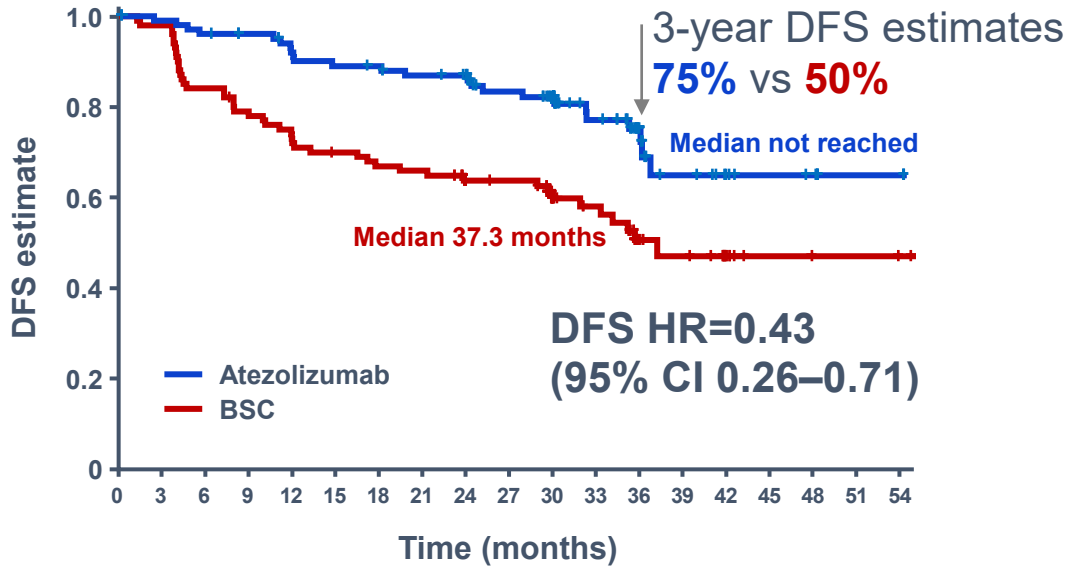
The first pre-specified OS interim analysis is considered exploratory; stratified HRs

1. Wakelee, et al. ASCO 2021; 2. Felip, et al. Lancet 2021; 3. Felip, et al. WCLC 2022; 4. Felip, et al. Ann Oncol 2023; 5. EMA SmPC TECENTRIQ (atezolizumab)

IMpower010: DFS benefit and clinically meaningful OS trend in the PD-L1 ≥50%, stage II–IIIA population

DFS in PD-L1 TC ≥50%, stage II–IIIA NSCLC[1,2]

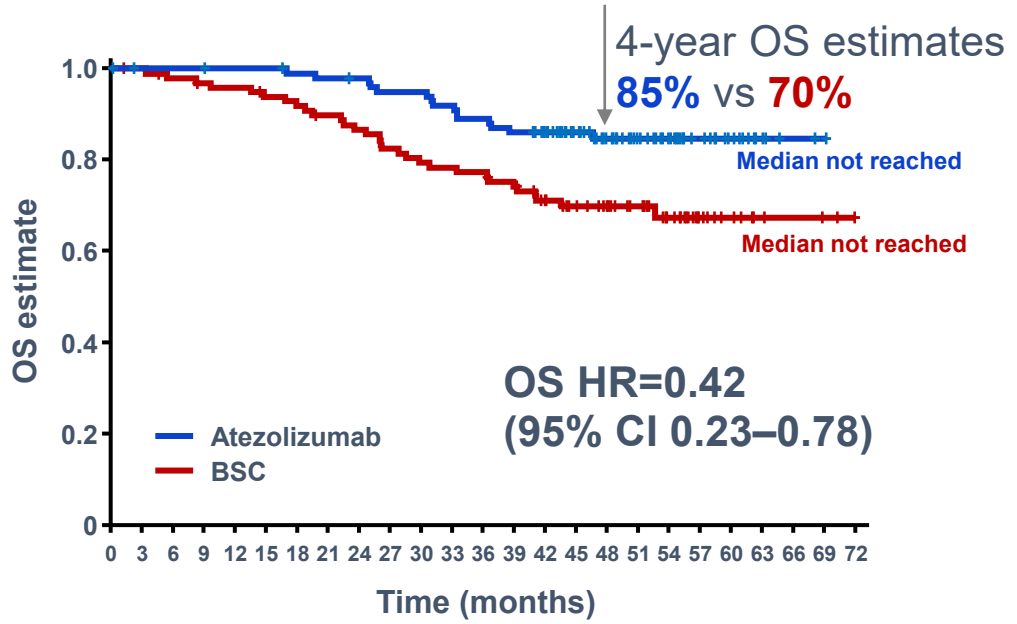
Excluding *EGFR+/ALK+*
(data cut-off: 21 January 2021;
median follow-up in stage II–IIIA population: 32.2 months)



No. at risk										
Atezolizumab	106	98	89	87	78	56	26	9	4	1
BSC	103	84	72	65	57	42	17	9	3	2

OS in PD-L1 TC ≥50%, stage II–IIIA NSCLC[3,4]

Excluding *EGFR+/ALK+*
(data cut-off: 18 April 2022;
median follow-up in stage II–IIIA population: 45.1 months)



No. at risk																									
Atezolizumab	106	104	104	104	103	103	101	100	99	96	96	93	90	87	83	69	58	41	32	20	13	6	2	1	NE
BSC	103	101	98	96	95	92	90	87	84	80	77	76	75	71	64	52	45	35	24	14	8	4	3	2	NE

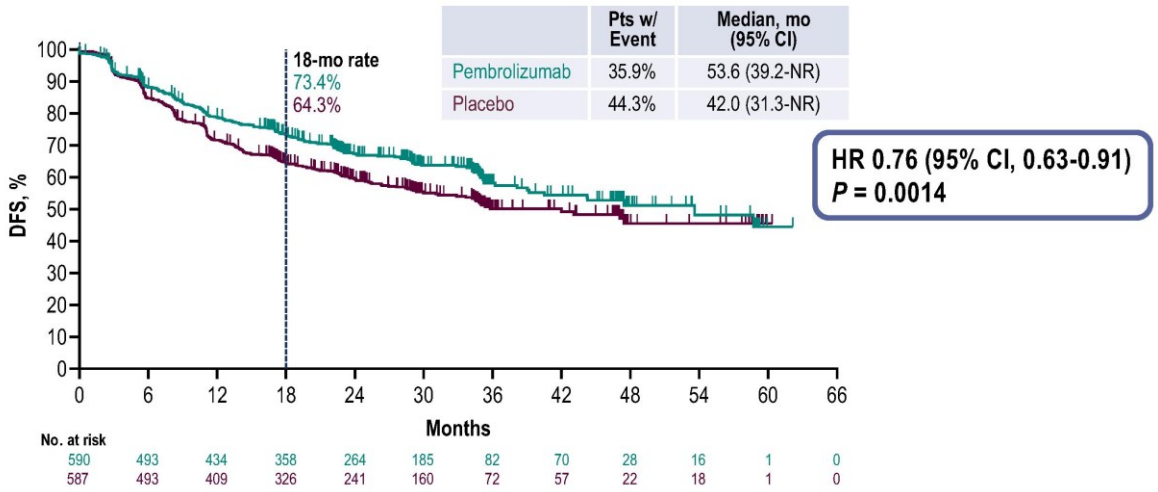
These data led to approvals in the EU and other countries including Canada, the UK, and Switzerland*

Unstratified HRs; the first pre-specified OS interim analysis is considered exploratory
**EGFR+/ALK+* NSCLC not excluded in Switzerland

1. Felip, et al. ELCC 2022; 2. Felip, et al. Lancet 2021; 3. Felip, et al. WCLC 2022; 4. Felip, et al. Ann Oncol 2023

KEYNOTE-091: adjuvant pembrolizumab improved DFS versus placebo in the overall study population

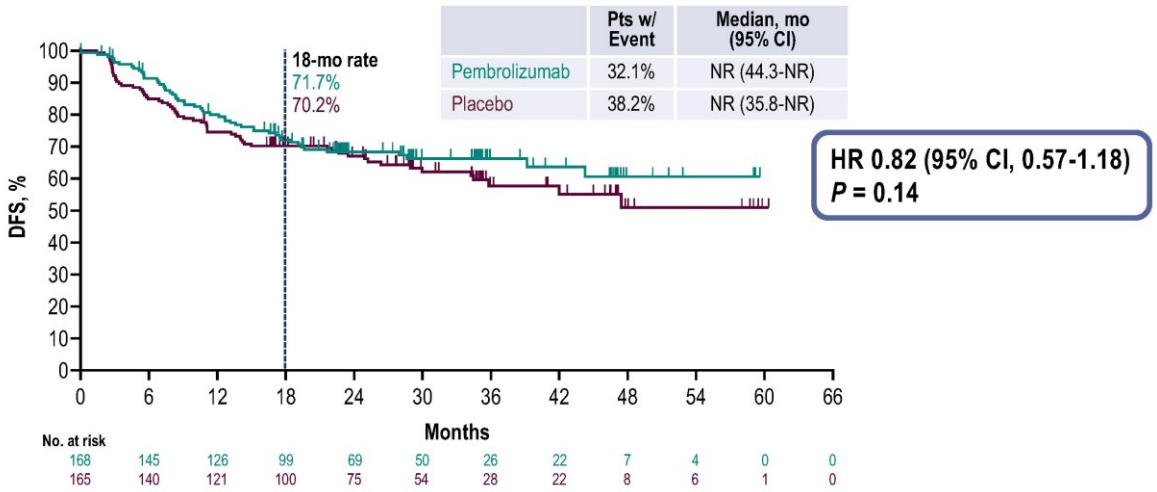
DFS, Overall Population



ESMO VIRTUAL PLENARY

Response assessed per RECIST v1.1 by investigator review.
Data cutoff date: September 20, 2021

DFS, PD-L1 TPS ≥50% Population



ESMO VIRTUAL PLENARY

Response assessed per RECIST v1.1 by investigator review.
Data cutoff date: September 20, 2021

DFS HR in patients who received prior chemotherapy: **all patients = 0.73; PD-L1 TPS ≥50% = 0.89**
Approval for adjuvant pembrolizumab: following resection and platinum-based chemotherapy for patients at high risk of recurrence, irrespective of PD-L1 status

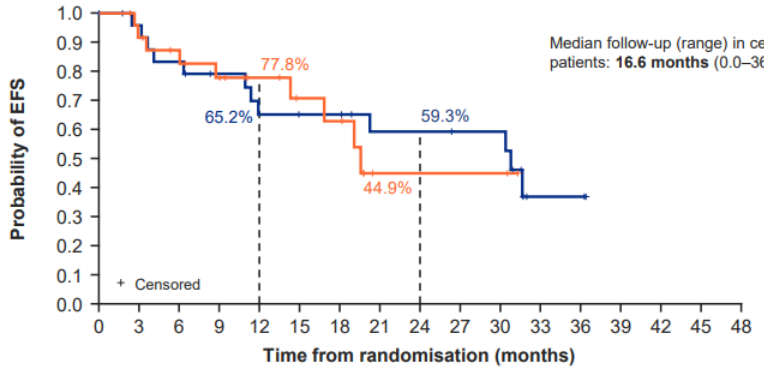
Paz-Ares, et al. ESMO Plenary 2022; O'Brien, et al. Lancet 2022; Oselin, et al. ASCO 2023; Merck press release (16 October 2023; KEYNOTE-091)

Analysis of outcomes by *EGFR* status highlights the importance of biomarker testing in resectable NSCLC: AEGEAN study

EFS using RECIST v1.1 (BICR) (*EGFR*m and mITT)*

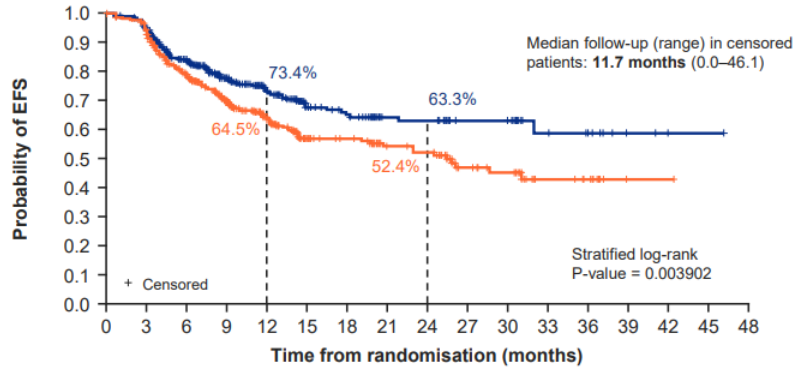
*EGFR*m subgroup	Durvalumab arm	Placebo arm
No. events / no. patients (%)	12/26 (46.2)	9/25 (36.0)
mEFS, months (95% CI)	30.8 (11.4, NR)	19.6 (14.3, NR)
Unstratified HR† (95% CI)	**0.86 (0.35, 2.19)**	

mITT population[1]	Durvalumab arm	Placebo arm
No. events / no. patients (%)	98/366 (26.8)	138/374 (36.9)
mEFS, months (95% CI)	NR (31.9, NR)	25.9 (18.9, NR)
Stratified HR† (95% CI)	**0.68 (0.53, 0.88)**	



No. at risk:

D arm	26	23	20	17	14	13	13	10	10	9	9	2	2	0	0	0	0
PBO arm	25	22	19	16	12	9	8	2	2	2	2	0	0	0	0	0	0



No. at risk:

D arm	366	336	271	194	140	90	78	50	49	31	30	14	11	3	1	1	0
PBO arm	374	339	257	184	136	82	74	53	50	30	25	16	13	1	1	0	0

DCO = Nov 10, 2022. *Pre-planned analysis. EFS is defined as time from randomisation to the earliest of: (A) progressive disease (PD) that precludes surgery; (B) PD discovered and reported by the investigator upon attempting surgery that prevents completion of surgery; (C) local/distant recurrence using BICR per RECIST v1.1; or (D) death from any cause. HR <1 favours the D arm versus the PBO arm. Median and landmark EFS estimates calculated using the Kaplan–Meier method. †HR for the *EGFR*m subgroup calculated from an unstratified Cox proportional hazards model; HR for the mITT population calculated using a stratified Cox proportional hazards model. CI, confidence interval; D, durvalumab; HR, hazard ratio; mEFS, median EFS; NR, not reached; PBO, placebo.

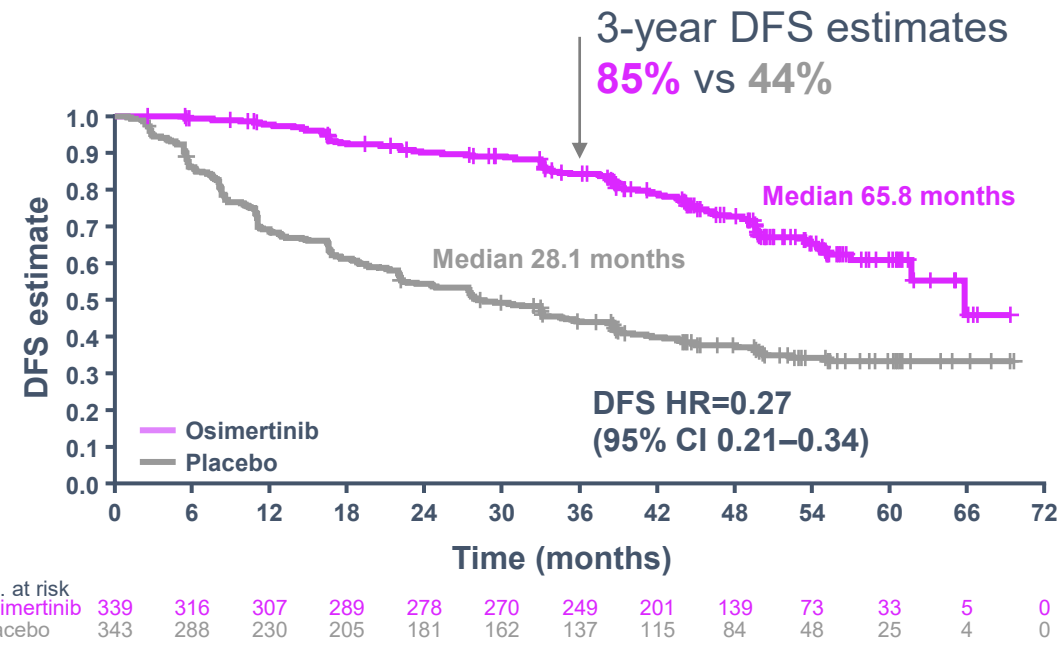
[1]Heymach JV, et al. *Cancer Res* 2023;83 (8_Supplement):CT005

David Harpole, Department of Surgery, Duke University Medical Center, Durham, North Carolina, USA

He, et al. WCLC 2023

ADAURA: improved DFS and OS with adjuvant osimertinib versus placebo in patients with *EGFR*+, stage II–IIIA NSCLC

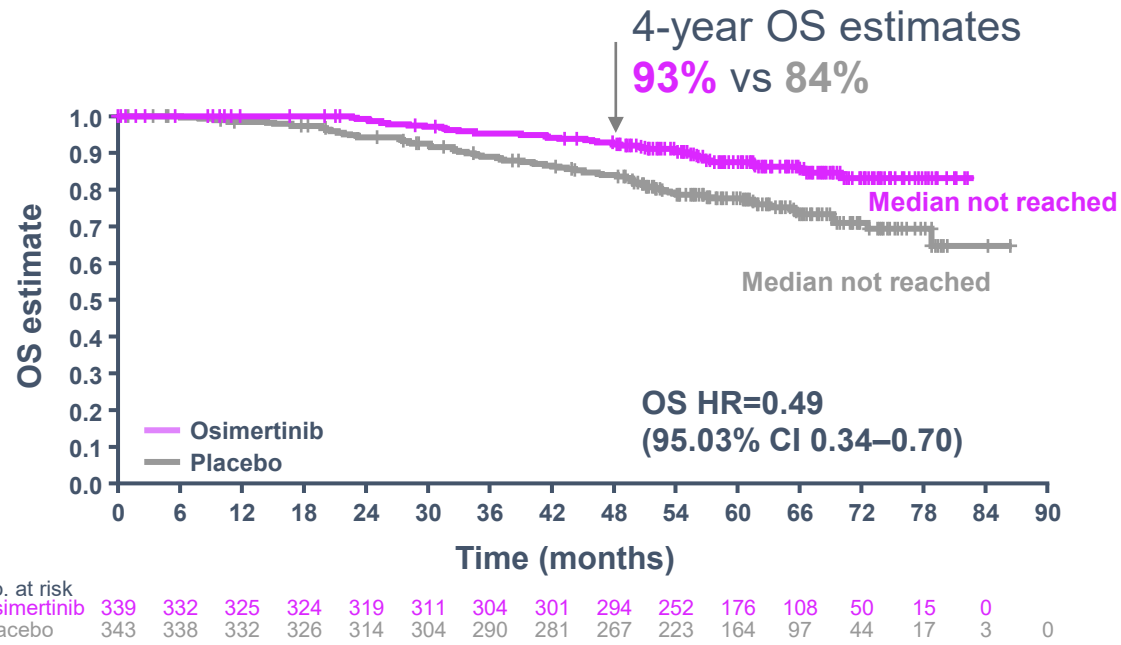
DFS in stage IB–IIIA[1]



No. at risk

Osimertinib	339	316	307	289	278	270	249	201	139	73	33	5	0
Placebo	343	288	230	205	181	162	137	115	84	48	25	4	0

OS in stage IB–IIIA[2,3]



No. at risk

Osimertinib	339	332	325	324	319	311	304	301	294	252	176	108	50	15	0	
Placebo	343	338	332	326	314	304	290	281	267	223	164	97	44	17	3	0

1. Herbst, et al. J Clin Oncol 2023. Herbst et al., Adjuvant Osimertinib for Resected EGFR-Mutated Stage IB-IIIA Non–Small-Cell Lung Cancer: Updated Results From the Phase III Randomized ADAURA Trial, Journal of Clinical Oncology, volume 41, issue 10, https://ascopubs.org/doi/10.1200/JCO.22.02186; 2. Herbst, et al. ASCO 2023; 3. Tsuboi, et al. N Engl J Med 2023

ALINA: adjuvant alectinib versus chemotherapy in patients with resected *ALK*+ NSCLC

ALINA study design*

Resected Stage IB (≥4cm)–IIIA *ALK*+ NSCLC
per UICC/AJCC 7th edition

Other key eligibility criteria:
- ECOG PS 0–1
- Eligible to receive platinum-based chemotherapy
- Adequate end-organ function
- No prior systemic cancer therapy

Stratification factors:
- Stage: IB (≥ 4cm) vs II vs IIIA
- Race: Asian vs non-Asian

R 1:1

N=257

Alectinib 600 mg BID 2 years → **Recurrence**

Platinum-based chemotherapy† Q3W; 4 cycles → **Recurrence**

Further treatments at investigator's choice and survival follow-up

Primary endpoint
- DFS per investigator,‡ tested hierarchically:
  - Stage II–IIIA → ITT (Stage IB–IIIA)

Other endpoints
- CNS disease-free survival
- OS
- Safety

Disease assessments (including brain MRI)§ were conducted: at baseline, every 12 weeks for year 1–2, every 24 weeks for year 3–5, then annually

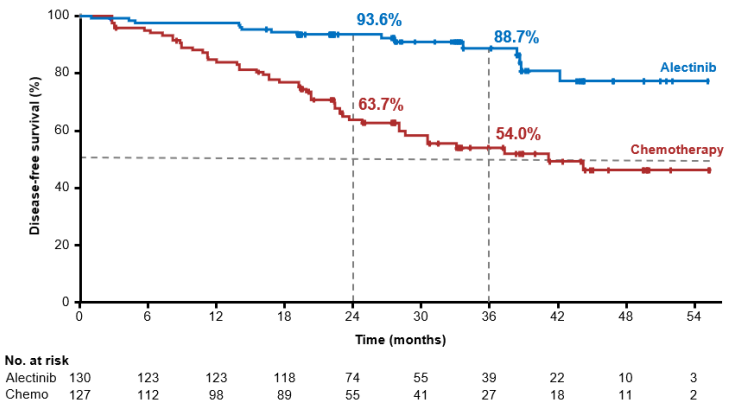
MADRID 2023 ESMO congress

Data cut-off: 26 June 2023; CNS, central nervous system; DFS, disease-free survival; ITT, intention to treat
*Superiority trial; †Cisplatin + pemetrexed, cisplatin + vinorelbine or cisplatin + gemcitabine; cisplatin could be switched to carboplatin in case of intolerability; ‡DFS defined as the time from randomisation to the first documented recurrence of disease or new primary NSCLC as determined by the investigator, or death from any cause, whichever occurs first; §Assessment by CT scan where MRI not available; NCT03456076

Solomon, et al. ESMO 2023

ALINA: adjuvant alectinib improved DFS and CNS-DFS versus chemotherapy in patients with resected *ALK*+ NSCLC

Disease-free survival: ITT (stage IB–IIIA)*



	Alectinib (N=130)	Chemotherapy (N=127)
Patients with event Death Recurrence	15 (12%) 0 15	50 (39%) 1 49
Median DFS, months (95% CI)	Not reached	41.3 (28.5, NE)
DFS HR (95% CI)	**0.24** (0.13, 0.43) p†<0.0001	

At the data cutoff date, **OS data were immature** with only 6 (2.3%) OS events reported‡

Median survival follow up: alectinib, 27.8 months; chemotherapy, 28.4 months

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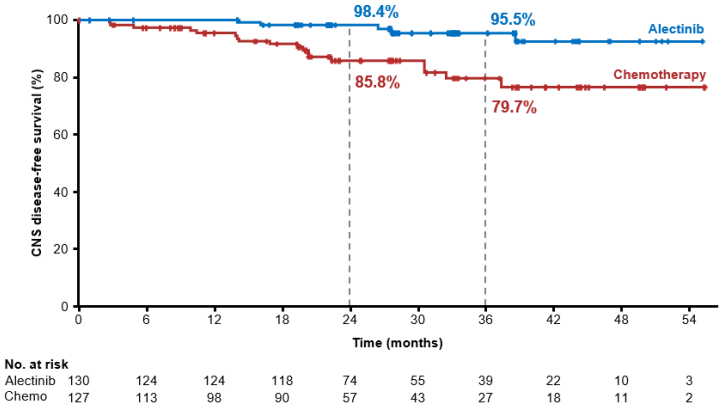
Data cut-off: 26 June 2023; Time from last patient in to data cut off was ~18 months
*Per UICC/AJCC 7th edition; †Stratified log rank; ‡2 events in the alectinib arm, 4 events in the chemo arm; one additional patient in the chemo arm died but was censored due to incomplete date of death recorded. DFS defined as the time from randomisation to the first documented recurrence of disease or new primary NSCLC as determined by the investigator, or death from any cause, whichever occurs first

CNS disease-free survival in the ITT population



	Alectinib (N=130)	Chemotherapy (N=127)
Patients with event Death Brain recurrence	5 1 4	18 4 14
CNS-DFS HR* (95% CI)	**0.22** (0.08, 0.58)	

Median survival follow up: alectinib, 27.8 months; chemotherapy, 28.4 months

MADRID 2023 ESMO congress

Data cut-off: 26 June 2023
*Stratified analysis with race and stage as stratification factors
CNS-DFS defined as time from randomisation to the first documented recurrence of disease in the CNS or death from any cause

Solomon, et al. ESMO 2023

ALINA: DFS benefit with alectinib versus chemotherapy was seen across all subgroups

Disease-free survival subgroup analysis (ITT)

Subgroup		No. of events / patients	DFS HR (95% CI)
All patients		65 / 257	0.24 (0.14–0.43)
Age	<65	43 / 196	0.26 (0.13–0.52)
	≥65	22 / 61	0.24 (0.08–0.71)
Sex	Male	35 / 123	0.26 (0.11–0.60)
	Female	30 / 134	0.22 (0.10–0.50)
Race	Asian	31 / 143	0.36 (0.17–0.79)
	Non-Asian	34 / 114	0.16 (0.06–0.38)
ECOG PS at baseline	0	32 / 137	0.20 (0.09–0.46)
	1	33 / 120	0.31 (0.14–0.69)
Tobacco use history	Never	37 / 154	0.27 (0.13–0.55)
	Current	0 / 8	NE
	Previous	28 / 95	0.22 (0.08–0.57)
Stage*	Stage IB	6 / 26	0.21 (0.02–1.84)
	Stage II	22 / 92	0.24 (0.09–0.65)
	Stage IIIA	37 / 139	0.25 (0.12–0.53)
Regional lymph node status	N0	11 / 39	0.19 (0.04–0.88)
	N1	20 / 88	0.34 (0.13–0.89)
	N2	34 / 130	0.21 (0.09–0.47)

Data cut-off: 26 June 2023

Arrows indicate lower bound of the CI<0.1; *Per UICC/AJCC 7th edition

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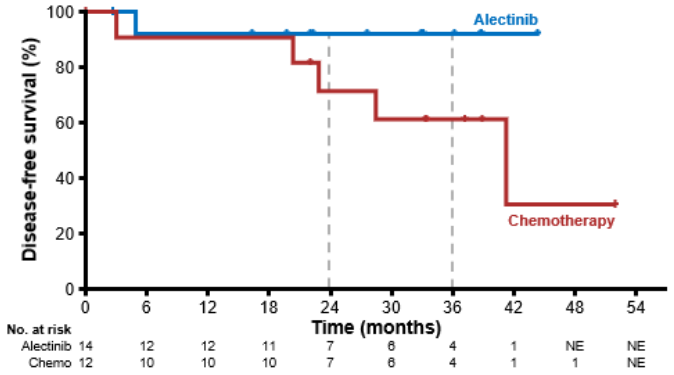
Unauthorised product/indication, experimental use

Solomon, et al. ESMO 2023

ALINA: DFS benefit with alectinib versus chemotherapy was seen across all disease stages included in the study

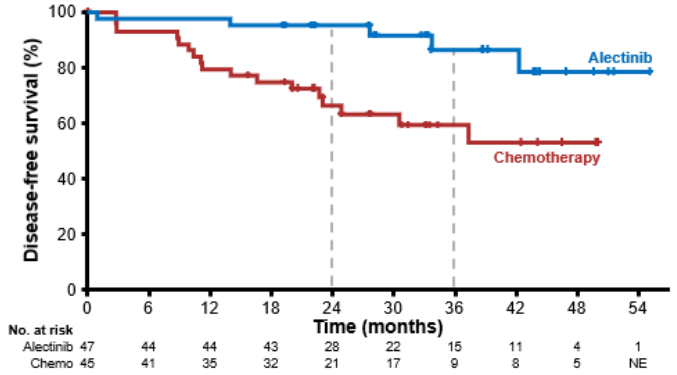
Disease-free survival by stage*

Stage IB

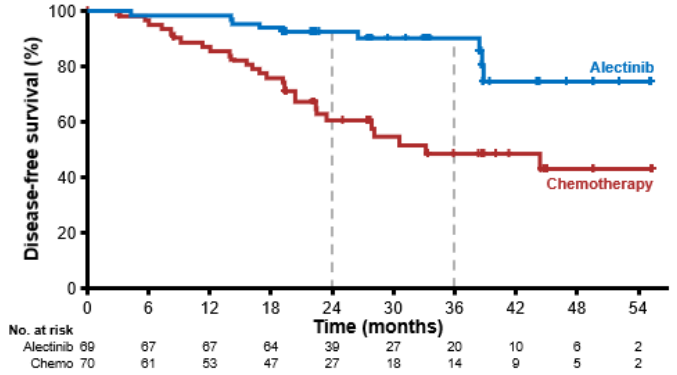


2-year DFS rate, % (95% CI)	Stage IB (n=26)	Stage II (n=92)	Stage IIIA (n=139)
Alectinib	92.3 (77.8, 100.0)	95.6 (89.5, 100.0)	92.7 (86.4, 98.9)
Chemotherapy	71.6 (44.2, 99.0)	66.3 (51.7, 81.0)	60.7 (47.9, 73.5)
HR† (95% CI)	0.21 (0.02, 1.84)	0.24 (0.09, 0.65)	0.25 (0.12, 0.53)

Stage II



Stage IIIA



MADRID 2023 ESMO congress

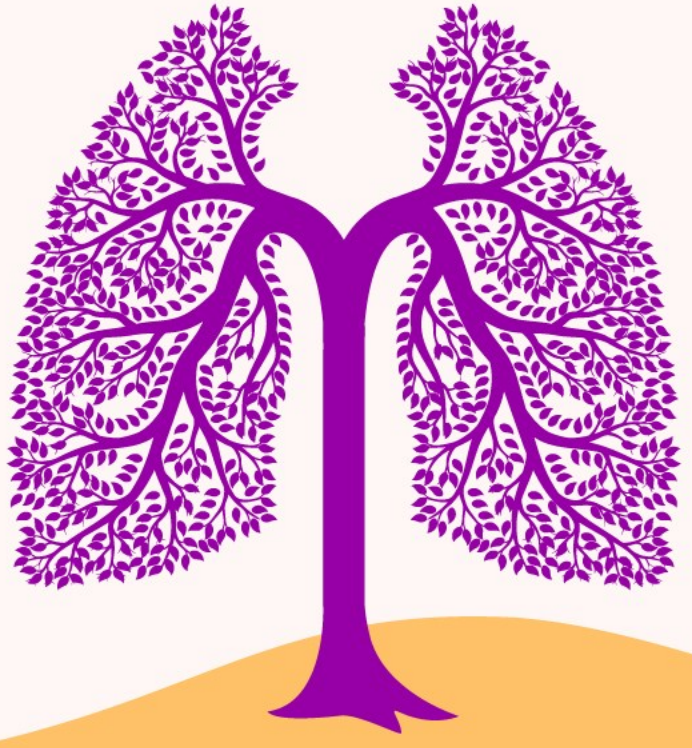
Data cut-off: 26 June 2023

*Per UICC/AJCC 7th edition; †Unstratified analysis

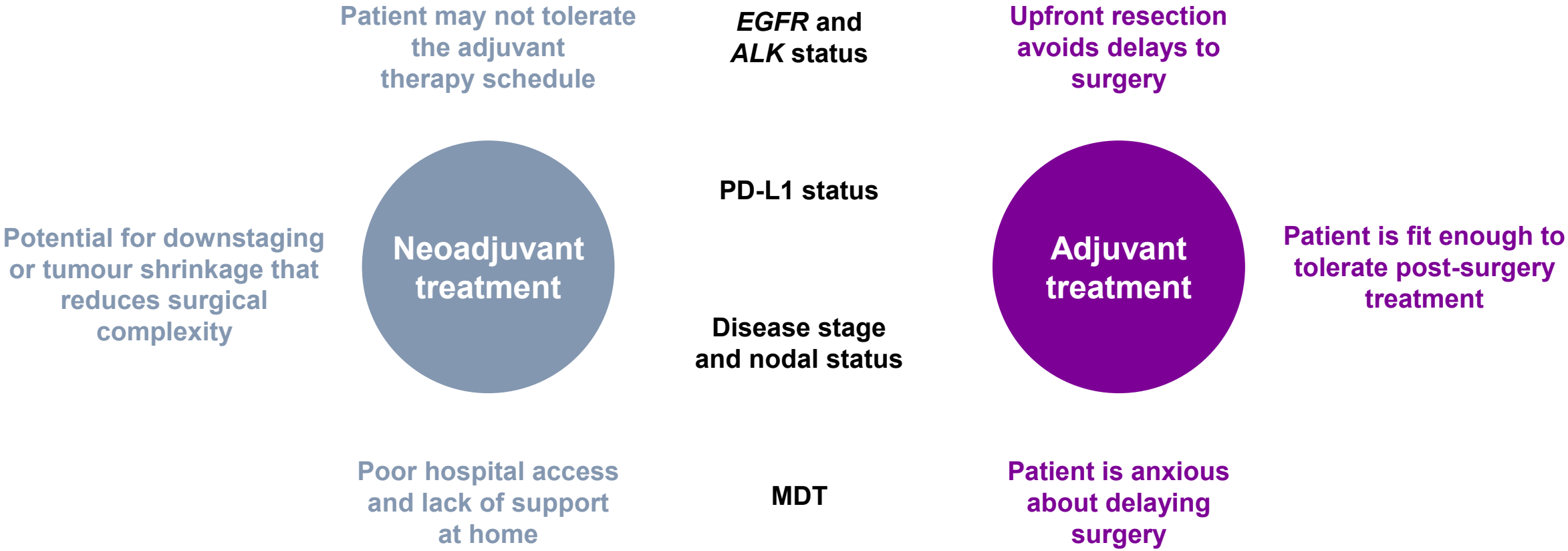
Unauthorised product/indication, experimental use

Solomon, et al. ESMO 2023

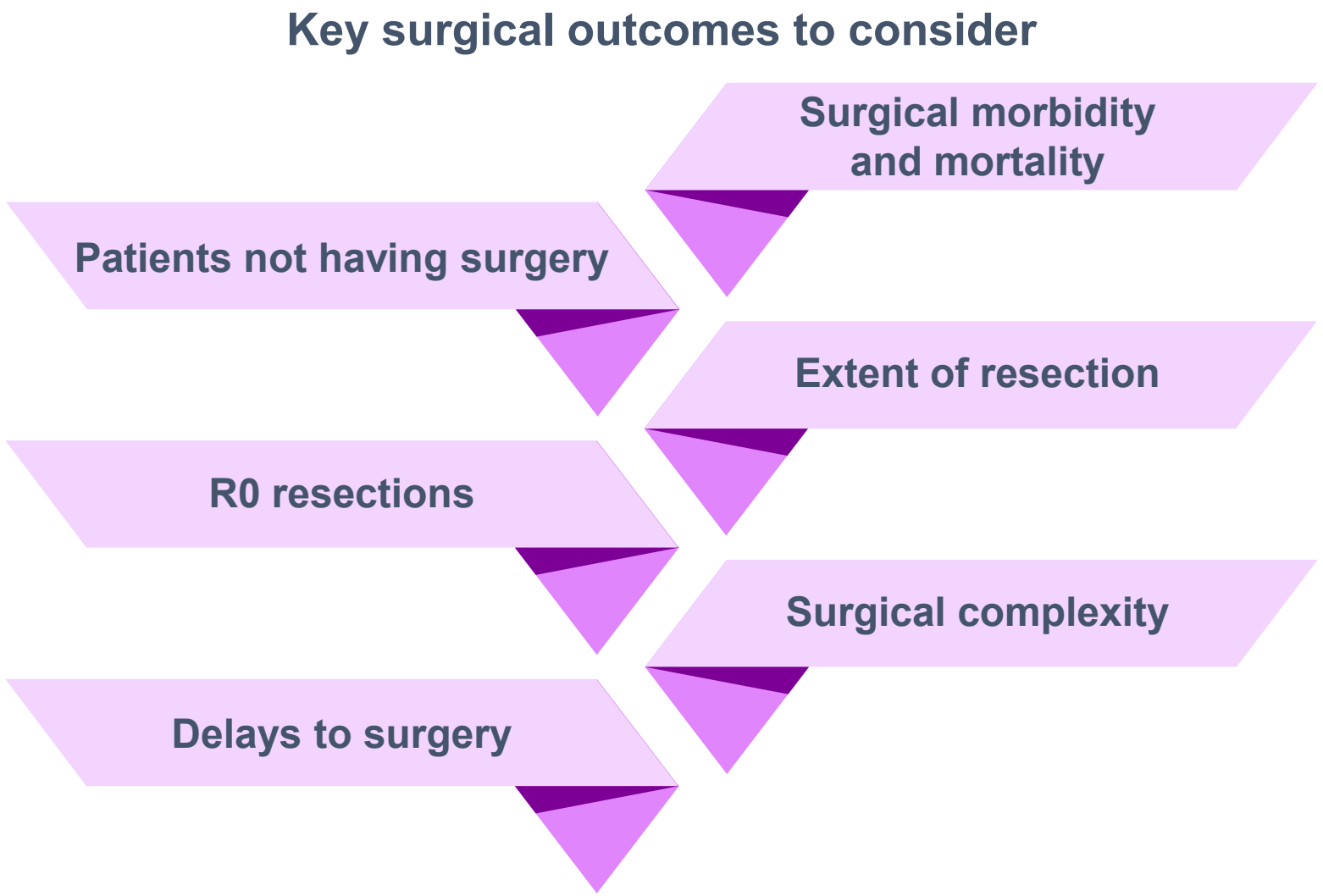
The surgeon’s perspective



A wide range of factors inform treatment decisions around adjuvant and neoadjuvant therapy

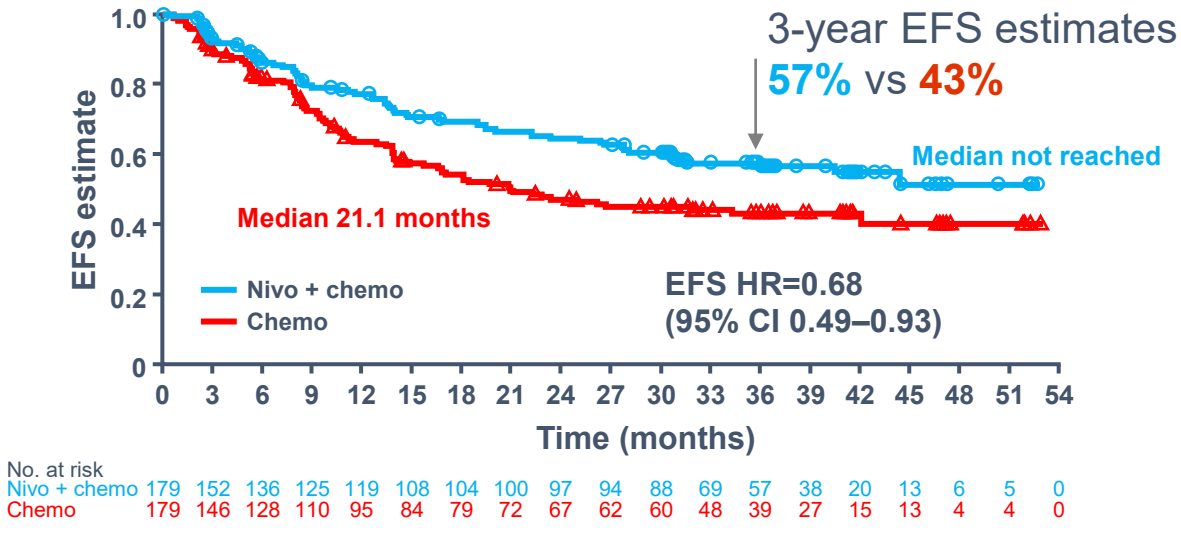


How neoadjuvant therapy impacts surgical decision making?



CheckMate 816: neoadjuvant nivolumab + chemotherapy improved EFS versus chemotherapy alone

EFS in the ITT population*[1]
(3-year update)

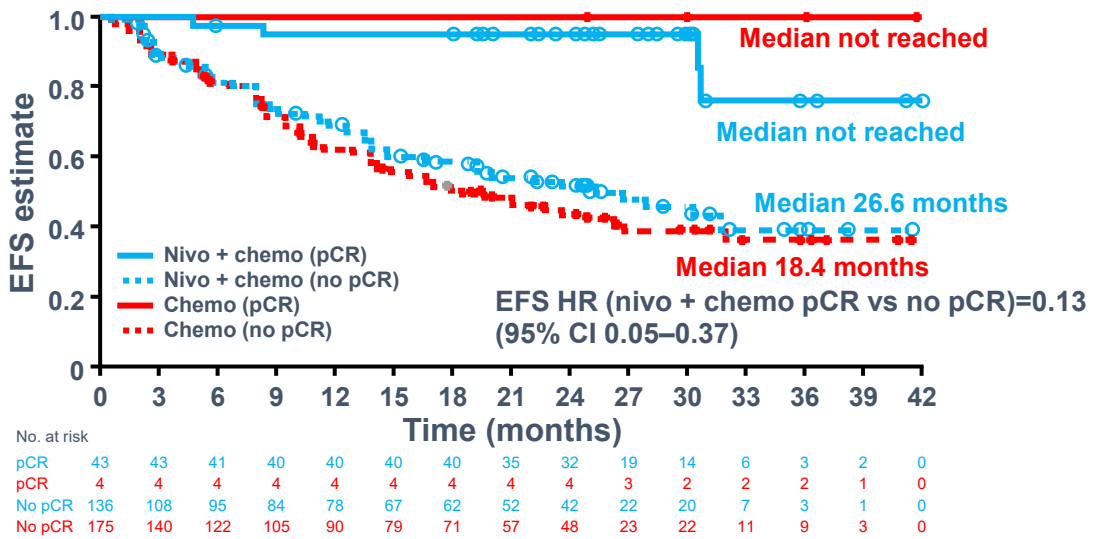


No. at risk

Nivo + chemo	179	152	136	125	119	108	104	100	97	94	88	69	57	38	20	13	6	5	0
Chemo	179	146	128	110	95	84	79	72	67	62	60	48	39	27	15	13	4	4	0

EFS by pCR status in the ITT population[2,3]

pCR rates†[4]
Nivo + chemo: 24%
Chemo: 2%



No. at risk

pCR	43	43	41	40	40	40	40	35	32	19	14	6	3	2	0
pCR	4	4	4	4	4	4	4	4	4	3	2	2	2	1	0
No pCR	136	108	95	84	78	67	62	52	42	22	20	7	3	1	0
No pCR	175	140	122	105	90	79	71	57	48	23	22	11	9	3	0

OS HR (3-year update): 0.62 (99.34% CI 0.36–1.05)[1]

In the EU, nivolumab is indicated in combination with chemotherapy as neoadjuvant treatment for adult patients with NSCLC with a high risk of recurrence whose tumours have PD-L1 expression on ≥1% of tumour cells;[5]
minimum follow-up for 3-year EFS update: 32.9 months (median follow-up, 41.4 months); minimum follow-up: for EFS by pCR analysis: 21 months (median follow-up: 29.5 months)
*Exploratory analysis; †pCR: 0% residual viable tumour cells in both primary tumour (lung) and sampled lymph nodes

1. Girard, et al. ELCC 2023; 2. Girard, et al. AACR 2022; 3. Forde, et al. N Eng J Med 2022; 4. Forde, et al. AACR 2021; 5. EMA SmPC OPDIVO (nivolumab)

CheckMate 816: the addition of neoadjuvant nivolumab to chemotherapy did not have a negative impact on surgical outcomes

ITT population	Nivolumab + chemotherapy (N=179)	Chemotherapy (N=179)
Patients with definitive surgery	83%	75%
Patients with delayed surgery[*†]	21%	18%
Type of surgery[*‡]		
Pneumonectomy	17%	25%
Lobectomy	77%	61%
Resection rate[*]		
R0	83%	78%
R1 / R2	11% / 3%	16% / 3%
Surgery-related AEs[§]		
Any grade	41%	47%
Grade 3–4	11%	15%

~20% of patients do not undergo surgery

Grade 5 surgery-related AEs[¶] were reported in 2 patients in the nivolumab + chemotherapy arm
(pulmonary embolism n=1; aortic rupture n=1) and were deemed unrelated to study drug per investigator

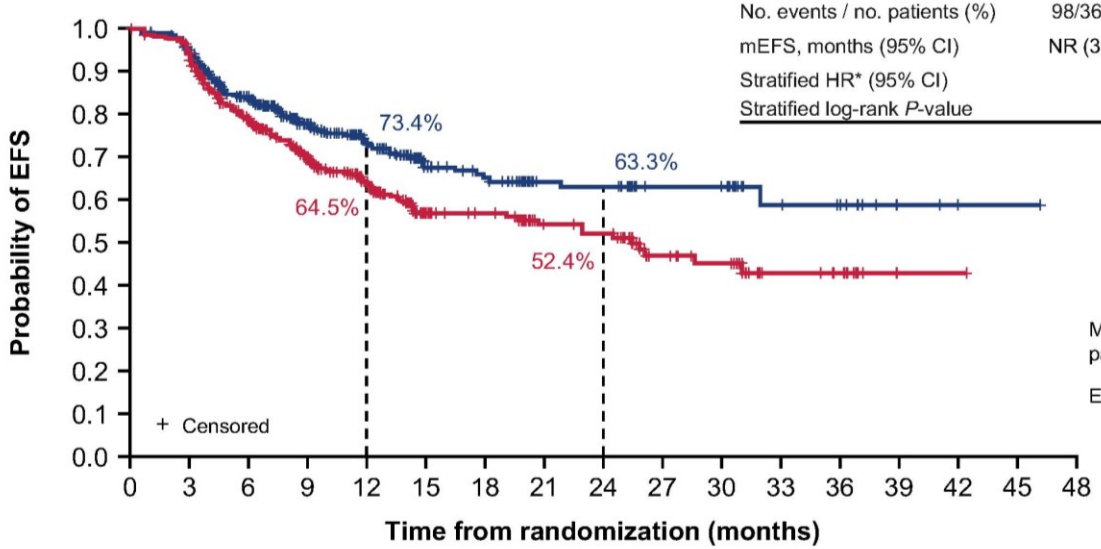
*Denominator based on patients with definitive surgery; †delayed surgery defined as time from last neoadjuvant dose to surgery >6 weeks; ‡patients may have had more than one surgery type
§includes events reported up to 90 days after definitive surgery; ¶defined as events that led to death within 24 hours of AE onset
Spicer, et al. ASCO 2021; Forde, et al. N Engl J Med 2022; Forde, et al. AACR 2021

AEGEAN: perioperative durvalumab + neoadjuvant chemotherapy improved EFS versus placebo + neoadjuvant chemotherapy

EFS using RECIST v1.1 (BICR) (mITT)
First planned interim analysis of EFS

AACR American Association for Cancer Research ANNUAL MEETING 2023
APRIL 14-19 • #AACR23

	D arm	PBO arm
No. events / no. patients (%)	98/366 (26.8)	138/374 (36.9)
mEFS, months (95% CI)	NR (31.9–NR)	25.9 (18.9–NR)
Stratified HR* (95% CI)	0.68 (0.53–0.88)	
Stratified log-rank *P*-value	0.003902	



Median follow-up (range) in censored patients: 11.7 months (0.0–46.1)

EFS maturity: 31.9%

No. at risk:

D arm	366	336	271	194	140	90	78	50	49	31	30	14	11	3	1	1	0
PBO arm	374	339	257	184	136	82	74	53	50	30	25	16	13	1	1	0	0

DCO = Nov 10, 2022. EFS is defined as time from randomization to the earliest of: (A) progressive disease (PD) that precludes surgery; (B) PD discovered and reported by the investigator upon attempting surgery that prevents completion of surgery; (C) local/distant recurrence using BICR per RECIST v1.1; or (D) death from any cause. *HR <1 favors the D arm versus the PBO arm. Median and landmark estimates calculated using the Kaplan–Meier method; HR calculated using a stratified Cox proportional hazards model; and *P*-value calculated using a stratified log rank test. Stratification factors: disease stage (II vs III) and PD-L1 expression status (<1% vs ≥1%). Significance boundary = 0.009899 (based on total 5% alpha), calculated using a Lan-DeMets alpha spending function with O'Brien Fleming boundary. mEFS, median EFS; NR, not reached.

Unauthorised product/indication, experimental use
Heymach, et al. AACR 2023

AEGEAN: the addition of neoadjuvant durvalumab to chemotherapy did not have a negative impact on surgical outcomes

Planned treatment and surgery summary (mITT)

N=740 randomized

366 assigned to the D arm
366 (100%) received neoadjuvant Tx

310 (84.7%) completed 4 cycles of both CT agents

71 (19.4%) did not undergo surgery

295 (80.6%) underwent surgery*

11 (3.0%) did not complete surgery

284 (77.6%) completed surgery†

374 assigned to the PBO arm
371 (99.2%) received neoadjuvant Tx

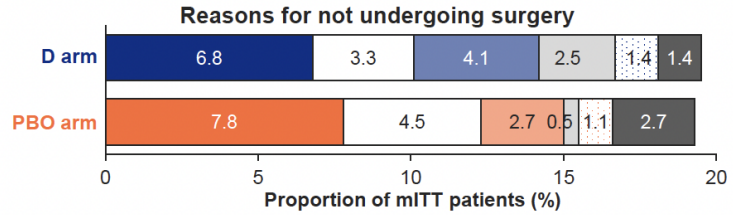
326 (87.2%) completed 4 cycles of both CT agents

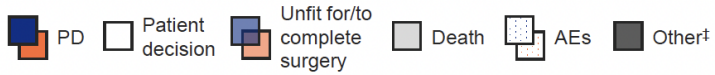
302 (80.7%) underwent surgery*

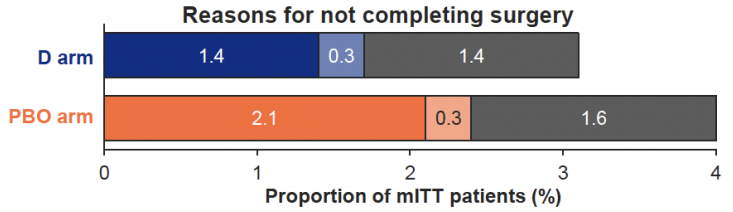
72 (19.3%) did not undergo surgery

287 (76.7%) completed surgery†

15 (4.0%) did not complete surgery







DCO = Nov 10, 2022. *Patients who 'underwent' surgery were those for whom curative-intent thoracic surgery was attempted regardless of whether it was completed. †Patients who 'completed' surgery were those for whom curative-intent thoracic surgery was completed (assessed by the investigator at the time of surgery). AEs, adverse events; Tx, treatment.

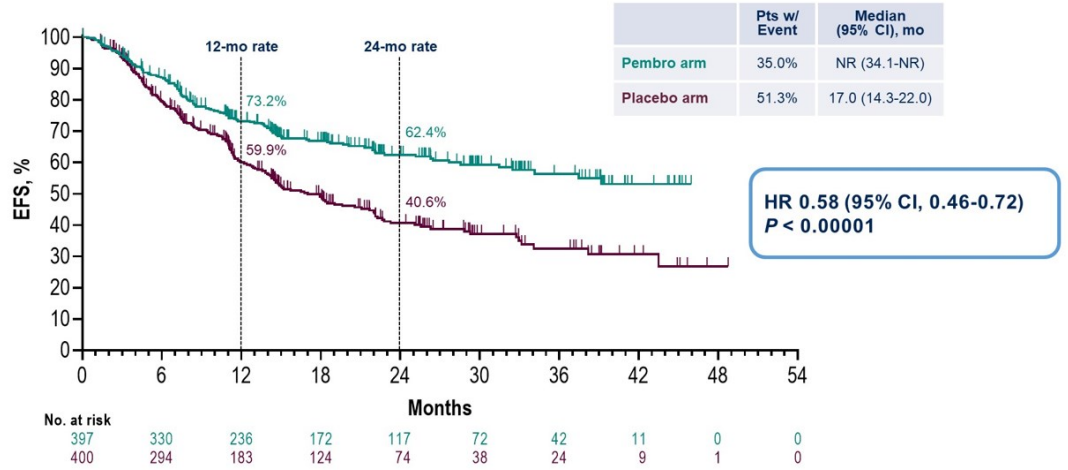
‡Other reasons for not undergoing surgery included investigator decision (n=2 in each arm), surgical resection with curative intent performed outside the study (D arm, n=1; PBO arm, n=5), 'other' NOS (n=2 in each arm), and missing (PBO arm, n=1). Other reasons for not completing surgery were NOS (D arm, n=5; PBO arm, n=6).

Tetsuya Mitsudomi, Division of Thoracic Surgery, Department of Surgery, Kindai University Faculty of Medicine, Osaka-Sayama, Japan

Mitsudomi, et al. WCLC 2023

KEYNOTE-671: EFS benefit was seen with perioperative pembrolizumab + chemotherapy versus placebo

Event-Free Survival



	Pts w/ Event	Median (95% CI), mo
Pembro arm	35.0%	NR (34.1-NR)
Placebo arm	51.3%	17.0 (14.3-22.0)

HR 0.58 (95% CI, 0.46-0.72)
***P* < 0.00001**

EFS defined as time from randomization to first occurrence of local progression precluding planned surgery, unresectable tumor, progression or recurrence per RECIST v1.1 by investigator assessment, or death from any cause. Data cutoff date for IA1: July 29, 2022 (median follow-up, 25.2 mo [range, 7.5-50.6]).

2023 ASCO ANNUAL MEETING #ASCO23 PRESENTED BY: Dr. Heather Wakelee

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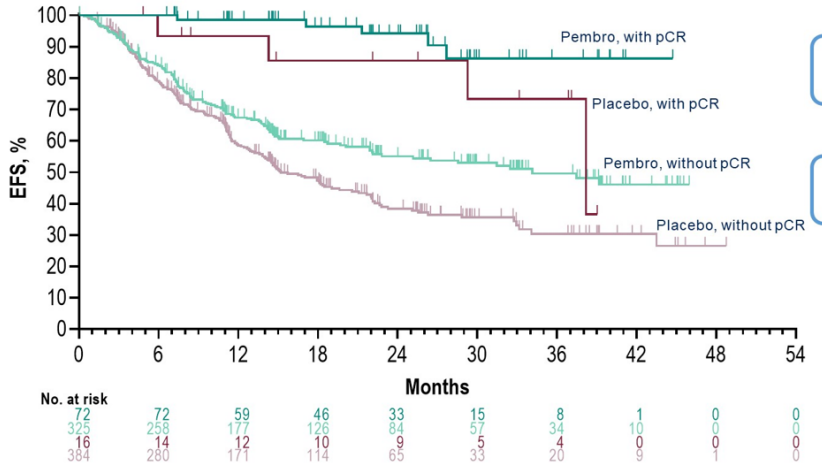
Exploratory Analysis of EFS by pCR Status



With pCR
HR 0.33 (95% CI, 0.09-1.22)

Without pCR
HR 0.69 (95% CI, 0.55-0.85)

pCR defined as absence of residual invasive cancer in resected primary tumor and lymph nodes (ypT0/Tis ypN0). EFS defined as time from randomization to first occurrence of local progression precluding planned surgery, unresectable tumor, progression or recurrence per RECIST v1.1 by investigator assessment, or death from any cause. Data cutoff date for IA1: July 29, 2022 (median follow-up, 25.2 mo [range, 7.5-50.6]).

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Wakelee, et al. ASCO 2023; Wakelee, et al. N Engl J Med 2023

KEYNOTE-671: addition of neoadjuvant pembrolizumab to chemotherapy did not have a negative impact on surgical outcomes

Surgical Details

	Pembro Arm N = 325	Placebo Arm N = 317
In-Study Surgery[a]		
Resected	320 (98.5%)	302 (95.3%)
Complete - R0	299 (92.0%)	267 (84.2%)
Incomplete - R1	17 (5.2%)	31 (9.8%)
Incomplete - R2	4 (1.2%)	4 (1.3%)
Unresected	5 (1.5%)	15 (4.7%)
Surgical procedure		
Lobectomy	256 (78.8%)	238 (75.1%)
Pneumonectomy	37 (11.4%)	39 (12.3%)
Bilobectomy	26 (8.0%)	26 (8.2%)
Exploratory thoracotomy	4 (1.2%)	13 (4.1%)
Other	2 (0.6%)[b]	1 (0.3%)[c]
30-day all-cause mortality	6 (1.8%)[d]	2 (0.6%)[e]

[a] An additional 8 participants in the pembro arm and 7 participants in the placebo arm underwent off-study surgery. [b] Lung segmentectomy (n=1), lung wedge resection (n=1). [c] Lymph node dissection only (planned surgery was lung lobectomy; need for more extensive surgery discovered during surgery, but consent was not granted). [d] Pulmonary embolism (n=2), pulmonary hemorrhage due to arterial injury during surgery (n=1), pulmonary sepsis (n=1), respiratory failure (n=1), and septic shock (n=1). [e] Respiratory failure (n = 1) and pneumonia (n = 1) Data cutoff date for IA1: July 29, 2022.

2023 ASCO ANNUAL MEETING #ASCO23

PRESENTED BY: Dr. Heather Wakelee

ASCO AMERICAN SOCIETY OF CLINICAL ONCOLOGY KNOWLEDGE CONQUERS CANCER

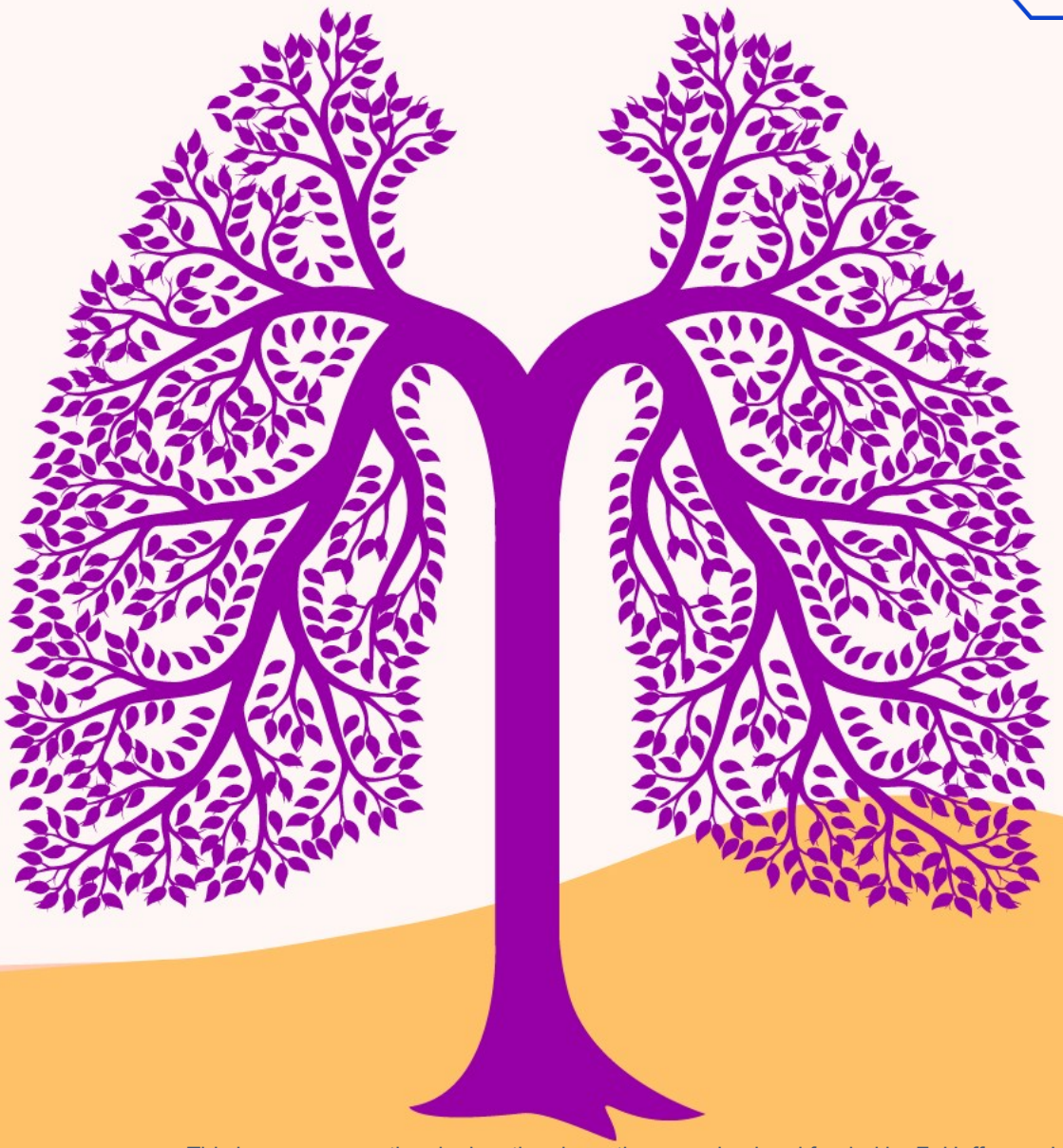
Recent data are changing our approach to treatment decision-making in resectable NSCLC

- **Cancer immunotherapy** and **targeted therapies** in the adjuvant and neoadjuvant setting have emerged as new efficacious treatment options in resectable NSCLC and some are available in clinical practice[1–7]
  - The full potential of perioperative regimens is still emerging
  - Further development of targeted therapies against 'new' biomarkers is key to optimising treatment[8]
- Multidisciplinary shared decision making and a wide range of factors should inform when to initiate systemic treatment, i.e. before or after surgery:
  - Disease characteristics (e.g. disease stage, biomarker status); assessment of **resectability** and **operability** for definitive surgery; patient characteristics and preference[9,10]
- The evolving treatment landscape requires that all patients with resectable NSCLC undergo PD-L1, *EGFR* and *ALK* biomarker testing **before systemic treatment decisions are made**[9]

1. US PI TECENTRIQ (atezolizumab); 2. EMA SmPC TECENTRIQ (atezolizumab); 3. US PI KEYTRUDA (pembrolizumab); 4. US PI TAGRISSO (osimertinib); 5. EMA SmPC TAGRISSO (osimertinib) 6. US PI OPDIVO (nivolumab); 7. EMA SmPC OPDIVO (nivolumab); 8. Pakkala & Ramalingam. JCI Insight 2018; 9. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for **Non-Small Cell Lung Cancer V.3.2023**.© National Comprehensive Cancer Network, Inc. 2023. All rights reserved. Accessed 17 October 2023. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way; 10. Postmus, et al. Ann Oncol 2017

ESMO 2023 Industry Satellite Symposium

Redefining Lung Cancer **Together:** A New Era for Patients



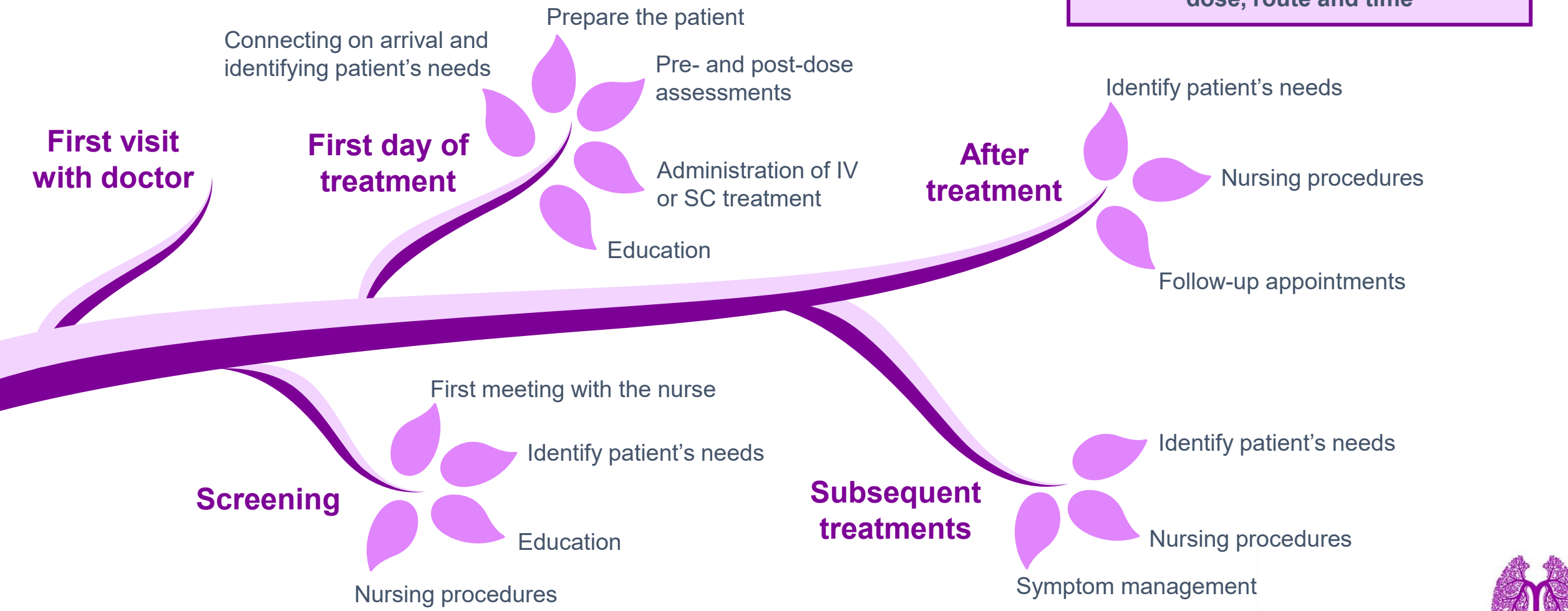
Alba Silverio Pons
Operational Research Nurse
Vall d´Hebron Institute of Oncology (VHIO)
Barcelona, Spain

A look at the patient journey through the lens of the nurse

Nurses carry out an essential role throughout the patient journey[1–3]

Nurse insights on a patient's needs can help optimise care

The right patient, medication, dose, route and time



1. Young, et al. Lancet Oncol 2020; 2. Role of the oncology nurse, from Holland-Frei Cancer Medicine. 6th edition; 3. Olsen, et al. J Comp Eff Res 2018

What matters most to patients with lung cancer?

Three overarching themes

- **Positive effects or expected gains from treatment**
- **Negative effects or adverse events related to treatment**
- **Uncertainty regarding the duration and type of treatment effects**

Petrocchi, et al. Front Pharmacol 2021

Drug-related factors that can influence cancer treatment decisions

Right medication for the right patient at the right time

- **Efficacy**
- **Safety**
- **Route of administration**
- **Dosing frequency**
- **Monitoring**

Nurses can improve a patient's experience of the treatment and can help them engage more effectively with the care team[1,2]

1. Yackzan, et al. Clin J Oncol Nurs 2019; 2. Tolotti, et al. Int J Environ Res Public Health 2022

Delivering cancer medicines in different ways can help make cancer care systems more economically sustainable[1]

Advantages of intravenous infusion[2,3]

- Most cancer medicines are available via IV infusion
- More than one medicine can be given via the same IV line
- Less likely to produce an allergic reaction
- Nurses can carry out other assessments during the infusion

1. Stoner, et al. Patient 2015; 2. Healthline, Intravenous Medication Administration: What to Know. July 2021. Available at: https://www.healthline.com/health/intravenous-medication-administration-what-to-know
3. Leveque. Anticancer Res 2014; 4. Bittner, et al. BioDrugs 2018; 5. Anderson, et al. Future Oncol 2019; 6. Lin, et al. BMJ Open 2023; 7. De Cock, et al. Value Health 2014
8. Olsen, et al. J Comp Eff Res 2018; 9. Denys, et al. Breast Cancer Res Treat 2020; 10. O'Shaughnessy, et al. Eur J Cancer 2021; 11. Jackish, et al. Geburtshilfe Frauenheilkd 2014

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Advantages of subcutaneous administration[1,3–8]

- Nurse presence during infusion enables more interaction with patients
- Reduced healthcare costs and resource utilisation
- More convenient for patients and potential for home administration
- Less pain and discomfort
- Reduced chance of infection
- Simpler administration and shorter treatment time

1. Stoner, et al. Patient 2015; 2. Healthline, Intravenous Medication Administration: What to Know. July 2021. Available at: https://www.healthline.com/health/intravenous-medication-administration-what-to-know
3. Leveque. Anticancer Res 2014; 4. Bittner, et al. BioDrugs 2018; 5. Anderson, et al. Future Oncol 2019; 6. Lin, et al. BMJ Open 2023; 7. De Cock, et al. Value Health 2014
8. Olsen, et al. J Comp Eff Res 2018; 9. Denys, et al. Breast Cancer Res Treat 2020; 10. O'Shaughnessy, et al. Eur J Cancer 2021; 11. Jackish, et al. Geburtshilfe Frauenheilkd 2014

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Many patients and healthcare professionals prefer an SC administration route[1,3–5,8–11]

1. Stoner, et al. Patient 2015; 2. Healthline, Intravenous Medication Administration: What to Know. July 2021. Available at: https://www.healthline.com/health/intravenous-medication-administration-what-to-know
3. Leveque. Anticancer Res 2014; 4. Bittner, et al. BioDrugs 2018; 5. Anderson, et al. Future Oncol 2019; 6. Lin, et al. BMJ Open 2023; 7. De Cock, et al. Value Health 2014
8. Olsen, et al. J Comp Eff Res 2018; 9. Denys, et al. Breast Cancer Res Treat 2020; 10. O'Shaughnessy, et al. Eur J Cancer 2021; 11. Jackish, et al. Geburtshilfe Frauenheilkd 2014

The nurse perspective: my personal experience

Relationship with patients

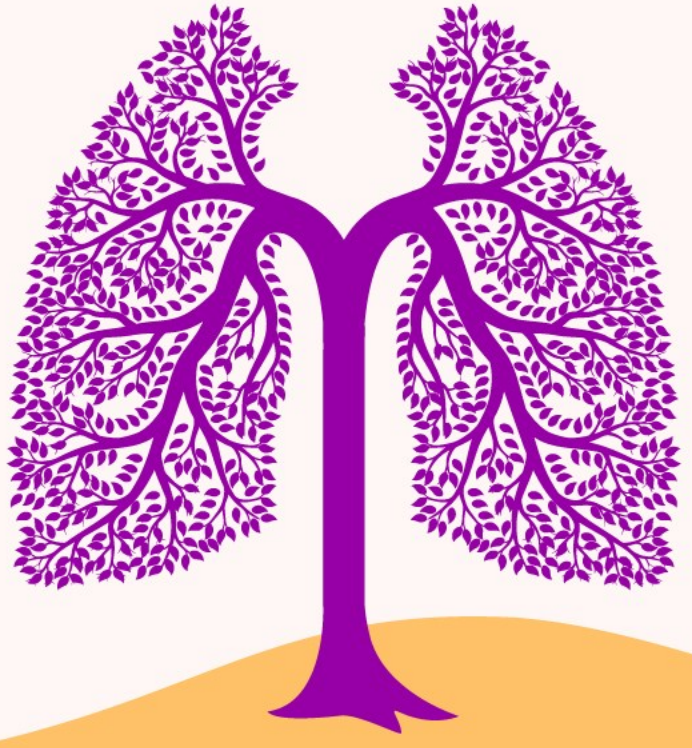
Education

Administration route

Patient's perception / needs

Cancer care in the future

Are there any data to support subcutaneous drug administration in NSCLC?



IMscin001: similar OS data with atezolizumab, regardless of the mode of drug administration

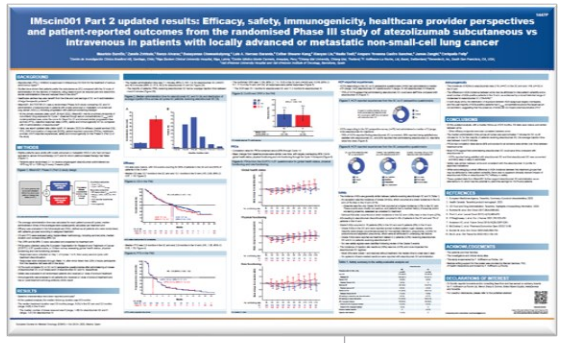
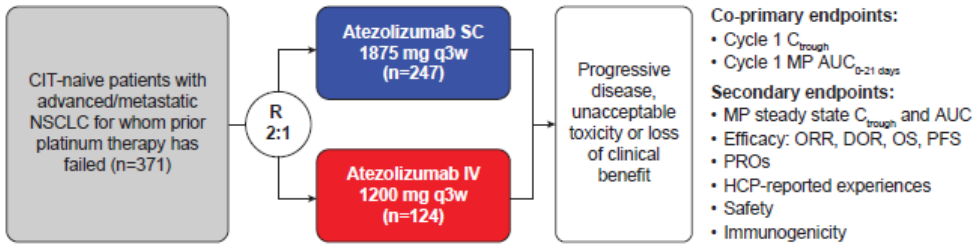
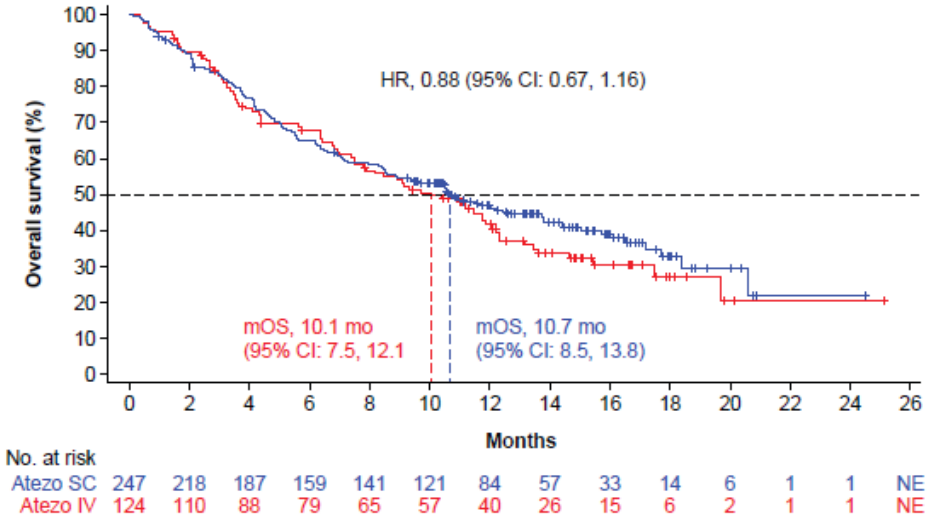

IMscin001 Part 2 updated results: Efficacy, safety, immunogenicity, healthcare provider perspectives and patient-reported outcomes from the randomised Phase III study of atezolizumab subcutaneous vs intravenous in patients with locally advanced or metastatic non-small-cell lung cancer

Figure 1. IMscin001 Phase III (Part 2) study design



AUC, area under the curve; MP, model-predicted.

Figure 3. OS in the FAS

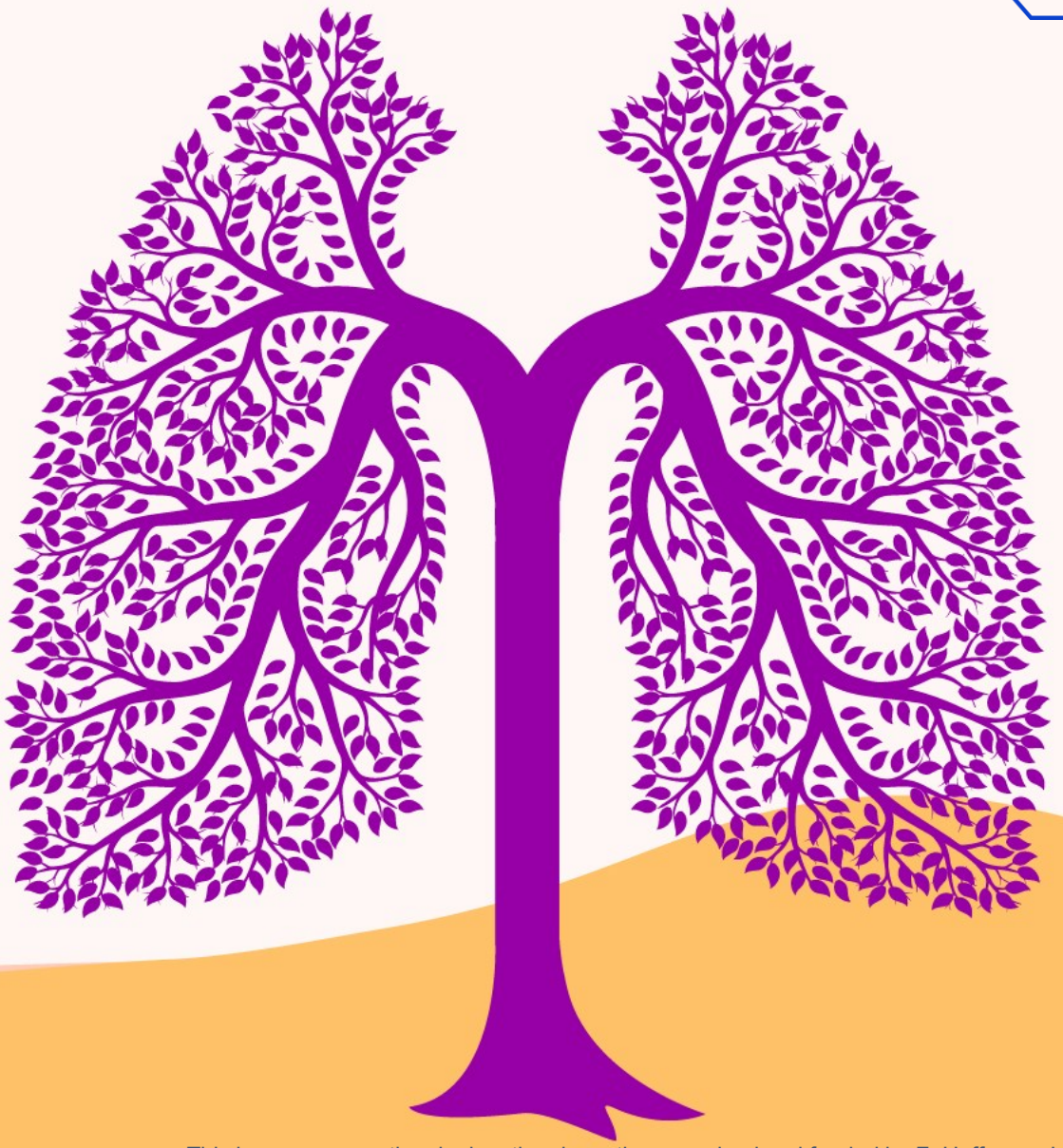


mOS, median overall survival; NE, not evaluable.

Burotto, et al. ESMO 2023

ESMO 2023 Industry Satellite Symposium

Redefining Lung Cancer **Together:** A New Era for Patients



Panel discussion Q&A

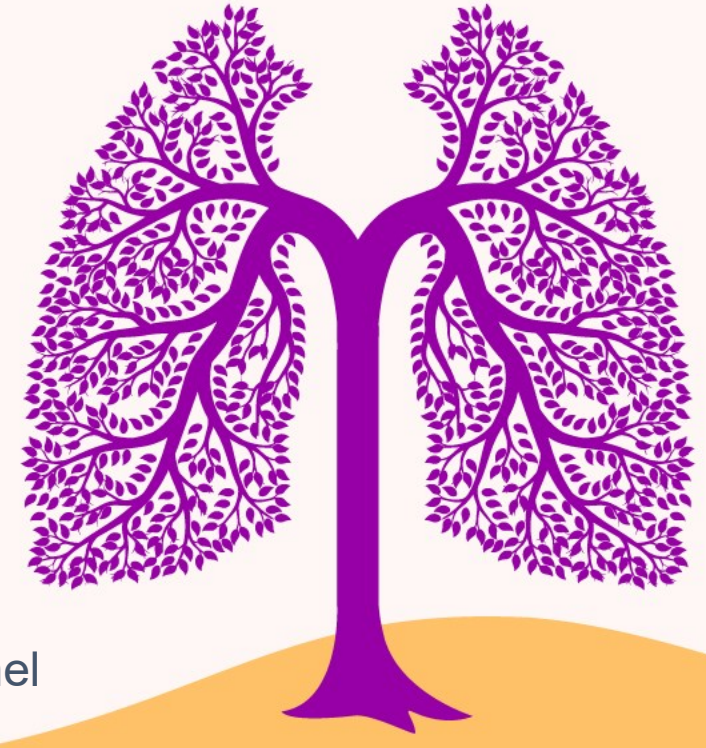
Stephen V Liu (Chair)
Georgetown University
Washington DC, USA

Nasser Altorki
Weill Cornell Medicine
New York, NY, USA

Lara Pijuan
Hospital Universitari de Bellvitge
Barcelona, Spain

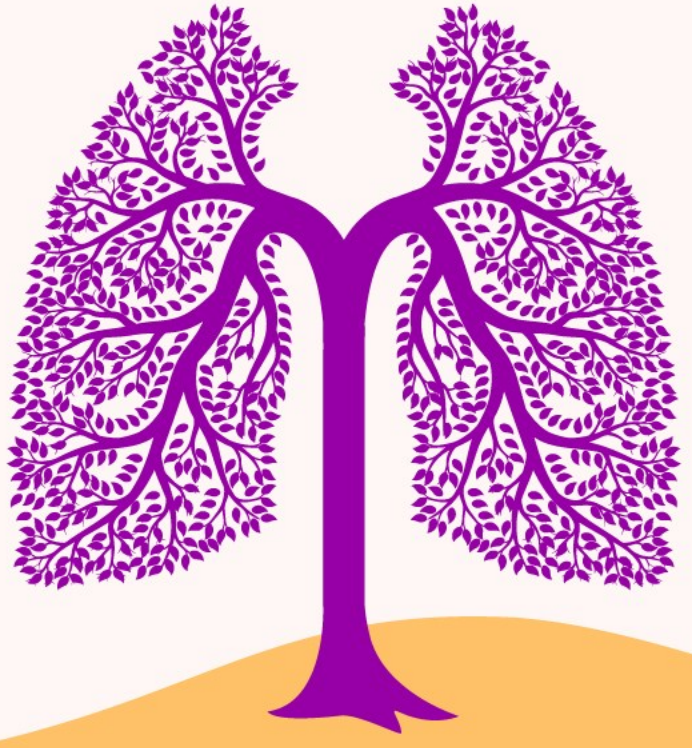
Alba Silverio Pons
Vall d'Hebron University Hospital
Barcelona, Spain

Martin Reck
LungenClinic
Großhansdorf, Germany



Please submit your **questions** to the panel

What’s new in immunotherapy in advanced NSCLC?



Phase III studies exploring new immunotherapy combinations to enhance the anti-tumour activity of anti-PD-(L)1 agents

New immunotherapy combinations to enhance the anti-tumour activity of anti-PD-(L)1 agents

Anti-PD-(L)1 + Anti-TIGIT

- First phase II data with this MoA: encouraging efficacy of **atezolizumab + tiragolumab** in **CITYSCAPE**[1]
- Phase III **SKYSCRAPER-01** trial is ongoing[2]
- The atezolizumab + tiragolumab combination is being investigated across lung cancer settings[2–5]

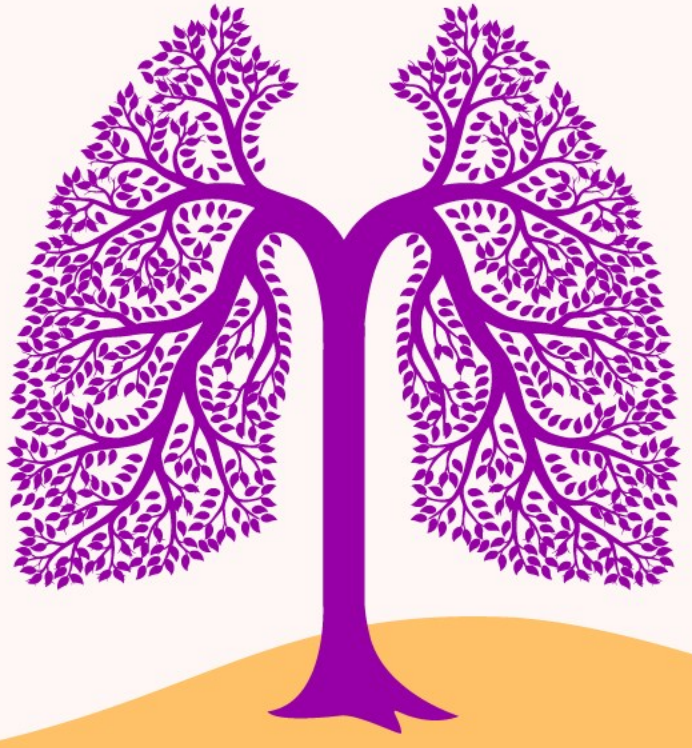
SKYSCRAPER-01 (phase III) Previously treated, **locally advanced unresectable or metastatic NSCLC with high PD-L1 expression (N=660)**	**SKYSCRAPER-06 (phase II/III)** Previously untreated **advanced non-squamous NSCLC in combination with chemotherapy (N=540)**	**SKYSCRAPER-03 (phase III)** **Unresectable stage III NSCLC with no PD after concurrent platinum-based chemoradiation (N=829)**

- Other anti-PD-(L)1 + anti-TIGIT trials are ongoing in advanced NSCLC, including:
  - **KEYVIBE-003 / -007 / -006: pembrolizumab + vibostolimab** +/– chemotherapy or chemoradiation[6–8]
  - **ARC-10 / STAR-121: zimberelimab + domvanalimab** +/– chemotherapy[9,10]
  - **AdvanTIG-302: tislelizumab + ociperlimab**[11]
  - **PACIFIC-8: durvalumab + domvanalimab**[12]

The content of this symposium may include scientific information about experimental or investigational compounds, indications and services that are not yet approved in the EU

1. Cho, et al. ESMO IO 2021; 2. https://clinicaltrials.gov/ct2/show/NCT04294810; 3. https://clinicaltrials.gov/ct2/show/NCT04619797; 4.https://clinicaltrials.gov/ct2/show/NCT04513925
5. https://clinicaltrials.gov/ct2/show/NCT04832854; 6. https://clinicaltrials.gov/ct2/show/NCT04738487; 7. https://clinicaltrials.gov/study/NCT05226598; 8. https://clinicaltrials.gov/study/NCT05298423
9. https://www.clinicaltrials.gov/study/NCT04736173; 10. https://clinicaltrials.gov/study/NCT05502237; 11. https://www.clinicaltrials.gov/study/NCT04746924; 12. https://clinicaltrials.gov/study/NCT05211895

What new developments are there in targeted therapies?



KRAS G12C inhibitors with reported data in NSCLC

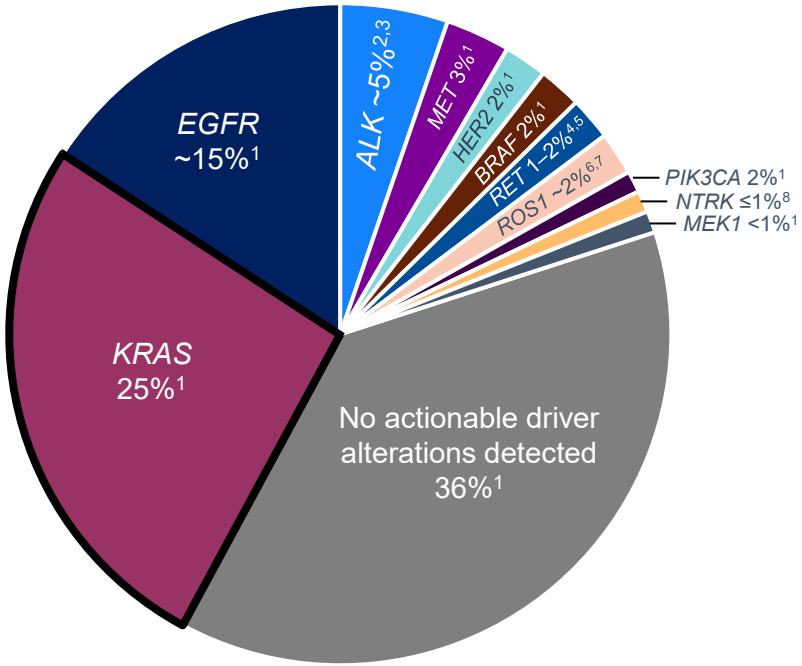


Figure adapted from Pakkala & Ramalingam. JCI Insight 2018

12–14% prevalence of ***KRAS G12C*** **in NSCLC**[9,10]

KRAS G12C inhibitors with reported data in NSCLC*

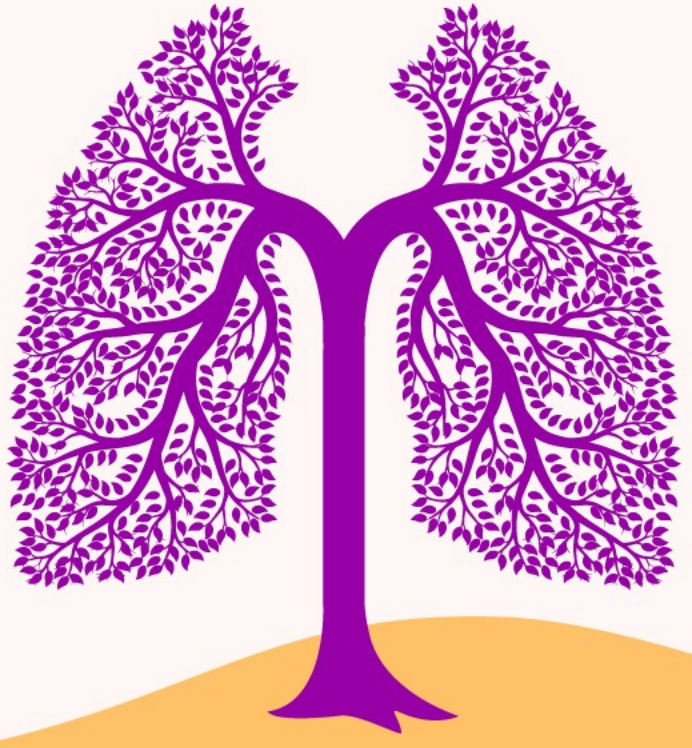
Manuscript recently published in **N Eng J Med**

- **Sotorasib** CodeBreaK100[9] CodeBreak200[11]
- **Adagrasib** KRYSTAL-1[12]
- **Divarasib** GO42144[10]
- **LY3537982** LOXO-RAS-20001[13]
- **JDQ443** KontRASt-01[14]
- **D-1553** NCT04585035[15]

*Only molecules with data from global studies are reported
The content of this symposium may include scientific information about experimental or investigational compounds, indications and services that are not yet approved in the EU

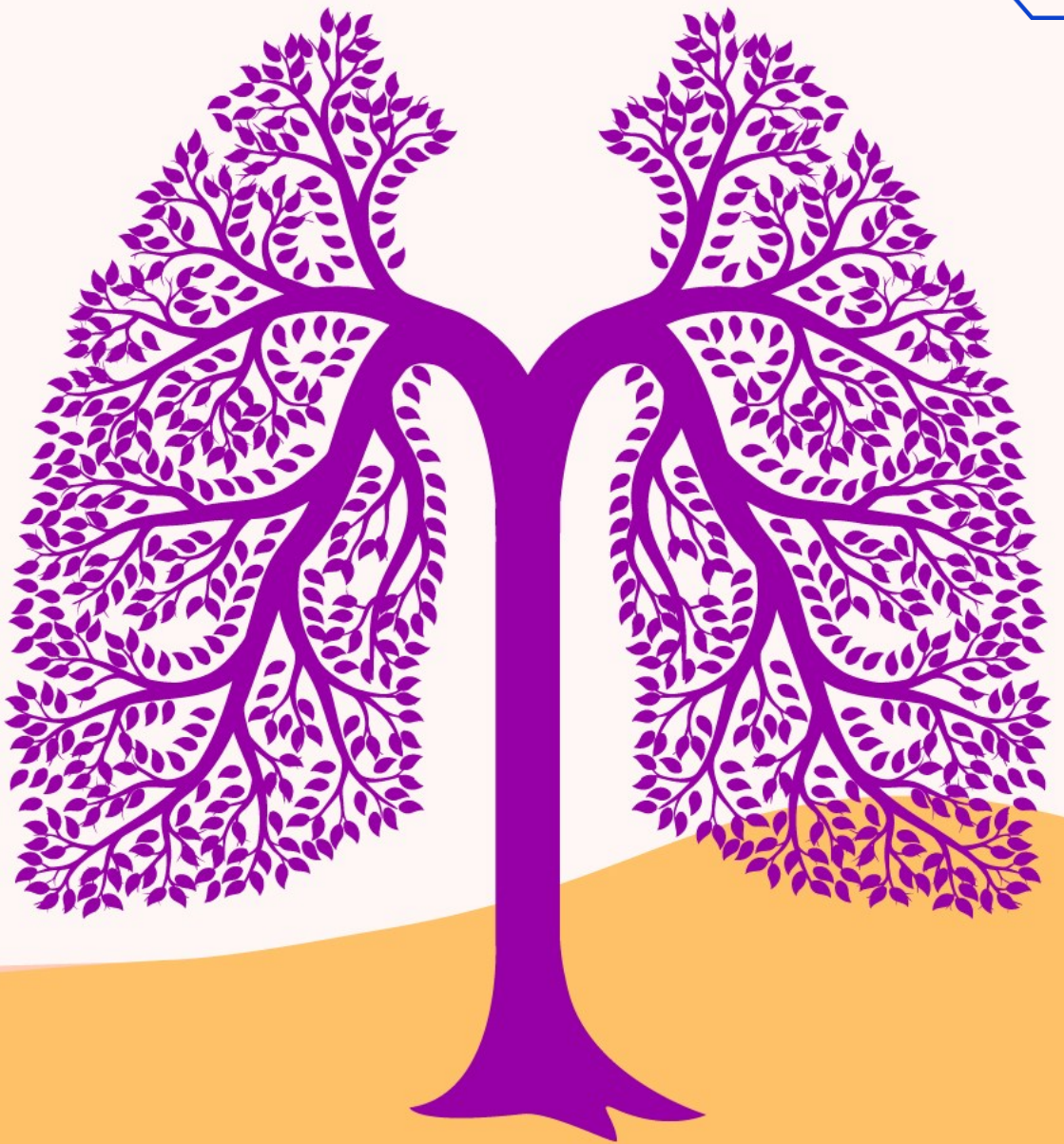
1. Pakkala & Ramalingam. JCI Insight 2018; 2. Barlesi, et al. Lancet 2016; 3. Tian, et al. Lung Cancer 2017; 4. Qiu, et al. Sci Rep 2020; 5. Gainor & Shaw. Oncologist 2013
6. Bergethon, et al. J Clin Oncol 2012; 7. Dugay, et al. Oncotarget 2017; 8. Farago, et al. JCO Precis Oncol 2018; 9. Skoulidis, et al. N Engl J Med 2021; 10. Sacher, et al. N Engl J Med 2023
11. de Langen, et al. Lancet 2023; 12. Jänne, et al. N Engl J Med 2022; 13. Murciano-Goroff, et al. AACR 2023; 14. Cassier et al. ASCO 2023; 15. Jian, et al. AACR 2022

Q&A



ESMO 2023 Industry Satellite Symposium

Redefining Lung Cancer **Together:** A New Era for Patients



Meeting Chair

Stephen V Liu

Georgetown University
Washington DC, USA

Closing remarks

Thank you for attending!

Please complete our online **evaluation form**

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