



# Other Oncogene-Driven Cancers

Nathaniel Myall, MD MS  
Stanford Cancer Institute  
Stanford, CA





## Discussion Outline

### 1. ***MET exon 14 – Resistance and Novel Therapies***

OA21.04 – Amivantamab in Patients With Advanced NSCLC and MET Exon 14 Skipping Mutation: Results From the CHRYSALIS Study

### 2. ***KRAS G12C – TKI Updates and Beyond***

MA06.04 – KRYSTAL-1: Two-Year Follow-Up of Adagrasib (MRTX849) Monotherapy in Patients With Advanced/Metastatic KRAS<sup>G12C</sup>-Mutated NSCLC

MA06.05 – CodeBreak 101: Safety and Efficacy of Sotorasib with Carboplatin and Pemetrexed in KRAS G12C-Mutated Advanced NSCLC

MA06.03 – KontRASt-01: Preliminary safety and efficacy of JDQ443 + TNO155 in patients with advanced, KRAS G12C-mutated solid tumors

### 3. ***HER2 – Optimal Dosing of Trastuzumab Deruxtecan***

MA13.10 – Trastuzumab Deruxtecan in Patients With *HER2*-Mutant Metastatic Non-Small Cell Lung Cancer: Primary Results of DESTINY-Lung02





# Amivantamab in Patients With Advanced NSCLC and *MET* Exon 14 Skipping Mutation: Results From the CHRYSALIS Study

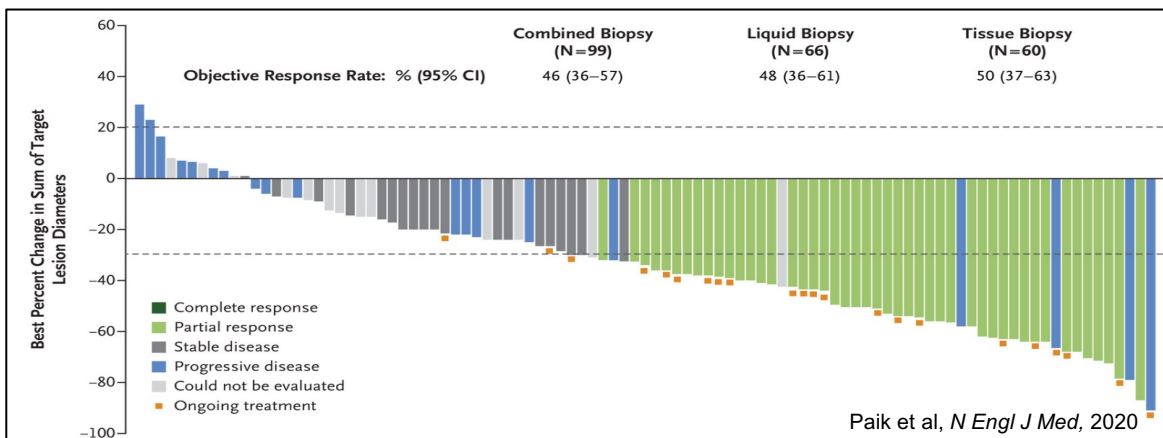
Natasha B. Leigh,<sup>1</sup> Byoung Chul Cho,<sup>2</sup> Sandrine Hirt,<sup>3</sup> Ji-Youn Han,<sup>4</sup> Ki Hyeong Lee,<sup>5</sup> Casilda Llacer Perez,<sup>6</sup> Matthew G. Krebs,<sup>7</sup> Filippo De Braud,<sup>8</sup> Eric Haura,<sup>9</sup> Rachel E. Sanborn,<sup>10</sup> James Chih-Hsin Yang,<sup>11</sup> Catherine A. Shu,<sup>12</sup> Koichi Goto,<sup>13</sup> Makoto Nishio,<sup>14</sup> Jun Zhao,<sup>15</sup> Zhijie Wang,<sup>16</sup> Pascale Tomasini,<sup>17</sup> Enriqueta Felip,<sup>18</sup> Jonathan W. Goldman,<sup>19</sup> Sai-Hong Ignatius Ou,<sup>20</sup> Michael Boyer,<sup>21</sup> Grace Gao,<sup>22</sup> Siyang Qu,<sup>22</sup> Joshua C. Curtin,<sup>23</sup> Xuesong Lyu,<sup>22</sup> Amy Roshak,<sup>23</sup> Robert W. Schnepf,<sup>23</sup> Priya Kim,<sup>23</sup> Jaime Mertz,<sup>23</sup> Meena Thayu,<sup>23</sup> S. Martin Shreeve,<sup>24</sup> Roland E. Knoblach,<sup>23</sup> Alexander I. Spira<sup>25</sup>

<sup>1</sup>Princess Margaret Cancer Centre, Toronto, ON, Canada; <sup>2</sup>Division of Medical Oncology, Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea; <sup>3</sup>Medical Oncology Department, Institut Cancérologie de l'Ouest, Saint Herblain, France; <sup>4</sup>National Cancer Center, Goyang-si, Republic of Korea; <sup>5</sup>Chungbuk National University Hospital, Cheongju, Republic of Korea; <sup>6</sup>Medical Oncology Intercenter Unit, Regional and Virgen de la Victoria University Hospitals, IBIMA, Málaga, Spain; <sup>7</sup>Division of Cancer Sciences, The University of Manchester and The Christie NHS Foundation Trust, Manchester, UK; <sup>8</sup>Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; <sup>9</sup>H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL, USA; <sup>10</sup>Earle A. Chiles Research Institute, Providence Cancer Institute, Portland, OR, USA; <sup>11</sup>National Taiwan University Cancer Center, Taipei, Taiwan; <sup>12</sup>Columbia University Medical Center, New York, NY, USA; <sup>13</sup>National Cancer Center Hospital East, Kashiwa, Japan; <sup>14</sup>The Cancer Institute Hospital, Japanese Foundation for Cancer Research, Tokyo, Japan; <sup>15</sup>Department of Thoracic Medical Oncology, Peking University Cancer Hospital and Institute, Beijing, China; <sup>16</sup>Cancer Hospital Chinese Academy of Medical Sciences, Beijing, China; <sup>17</sup>CEPCM "CLIP2" & Multidisciplinary Oncology & Therapeutic Innovations Department, Aix Marseille University, CNRS, INSERM, CRCM, APHM, Marseille, France; <sup>18</sup>Vall d'Hebron Institute of Oncology, Vall d'Hebron University Hospital, Barcelona, Spain; <sup>19</sup>David Geffen School of Medicine, University of California Los Angeles, Los Angeles, CA, USA; <sup>20</sup>University of California Irvine, Orange, CA, USA; <sup>21</sup>Chris O'Brien Lifehouse, Camperdown, Australia; <sup>22</sup>Janssen R&D, Shanghai, China; <sup>23</sup>Janssen R&D, Spring House, PA, USA; <sup>24</sup>Janssen R&D, San Diego, CA, USA; <sup>25</sup>Virginia Health Specialists, Fairfax, VA, USA.

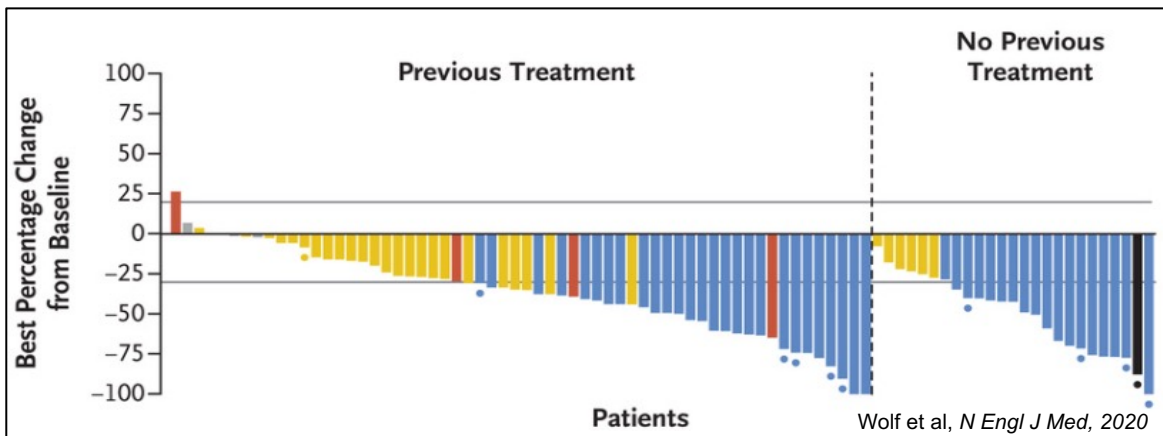




# Targeted Therapy Landscape for *MET* exon 14 Skipping Mutations

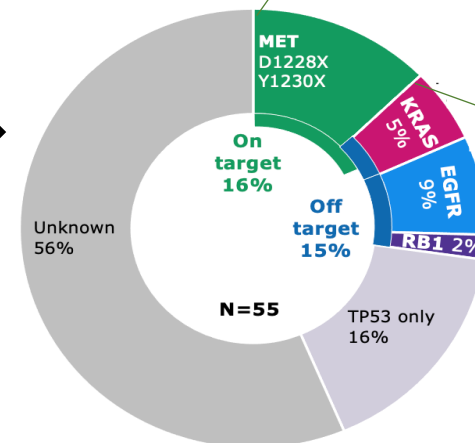


Tepotinib  
ORR 57%  
mPFS 12.6 mos



Capmatinib  
ORR 68%  
mPFS 12.4 mos

Resistance



<i>MET</i> resistance mutations	BOR	PFS, months
D1228N	PR	13.9
D1228N	PR	11.2
D1228G	PR	10.6
D1228H	PR	8.3
Y1230C	PR	6.9
Y1230C	PR	6.9
Y1230H	PR	5.7
D1228H/Y, Y1230C/H	PD	2.7
D1228Y, Y1230H	NE	2.7

Le et al, WCLC Abstract OA21.06, 2023





# Study Schema – CHRYSALIS

## Dose- escalation phase

**RP2D was  
identified:**  
Amivantamab  
1050 mg IV  
(1400 mg if  $\geq 80$  kg)

## Dose-expansion cohorts

Cohort A: Post-any EGFR TKI (T790M+, C797S+)

Cohort B: Post-any EGFR TKI (T790M-, C797S-)

Cohort C: Post-osimertinib (C797S+)

Cohort D: *EGFR* Ex20ins<sup>a</sup>

Cohort MET-1: Post-any EGFR TKI (*MET* amplified)

**Cohort MET-2: *MET*ex14<sup>b</sup>**

Cohorts WT: *EGFR* wild-type status

## Endpoints

- Objective response rate (primary)
- Duration of response
- Clinical benefit rate<sup>c</sup>
- Progression-free survival
- Overall survival
- Adverse events

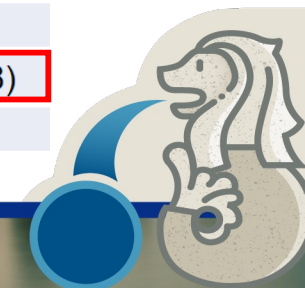
**Focus of this presentation**





## Baseline Demographics

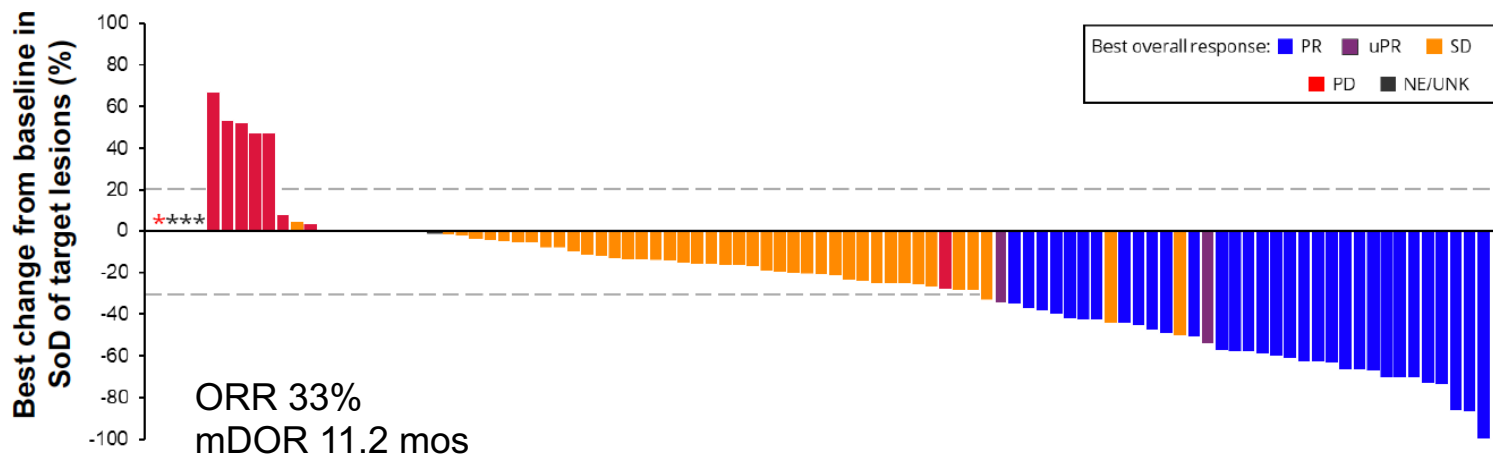
Characteristic, n (%)	Treatment-naïve (n = 16)	Previously treated		Total (n = 97)
		No prior MET therapies (n = 28)	Prior MET therapies (n = 53)	
Median age, years (range)	70 (57–86)	69 (49–83)	71 (43–88)	70 (43–88)
Female / male	8 (50) / 8 (50)	15 (54) / 13 (46)	29 (55) / 24 (45)	52 (54) / 45 (46)
Race				
Asian	10 (63)	16 (57)	21 (40)	47 (49)
White	6 (38)	9 (32)	23 (43)	38 (39)
Black	0	0	2 (4)	2 (2)
Not reported	0	3 (11)	7 (13)	10 (10)
History of brain metastases	1 (6)	4 (14)	9 (17)	14 (14)
ECOG PS				
0	7 (44)	4 (14)	8 (15)	19 (20)
1	9 (56)	23 (82)	45 (85)	77 (79)
2	0	1 (4)	0	1 (1)
History of smoking: yes / no	10 (63) / 6 (38)	14 (50) / 14 (50)	26 (49) / 27 (51)	50 (52) / 47 (48)
Median number of prior lines (range)	0	1 (1–4)	3 (1–10)	2 (0–10)





# Efficacy of Amivantamab

Best change from baseline in SoD of target lesions

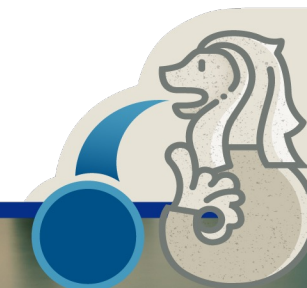


Patients



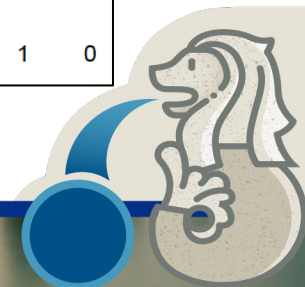
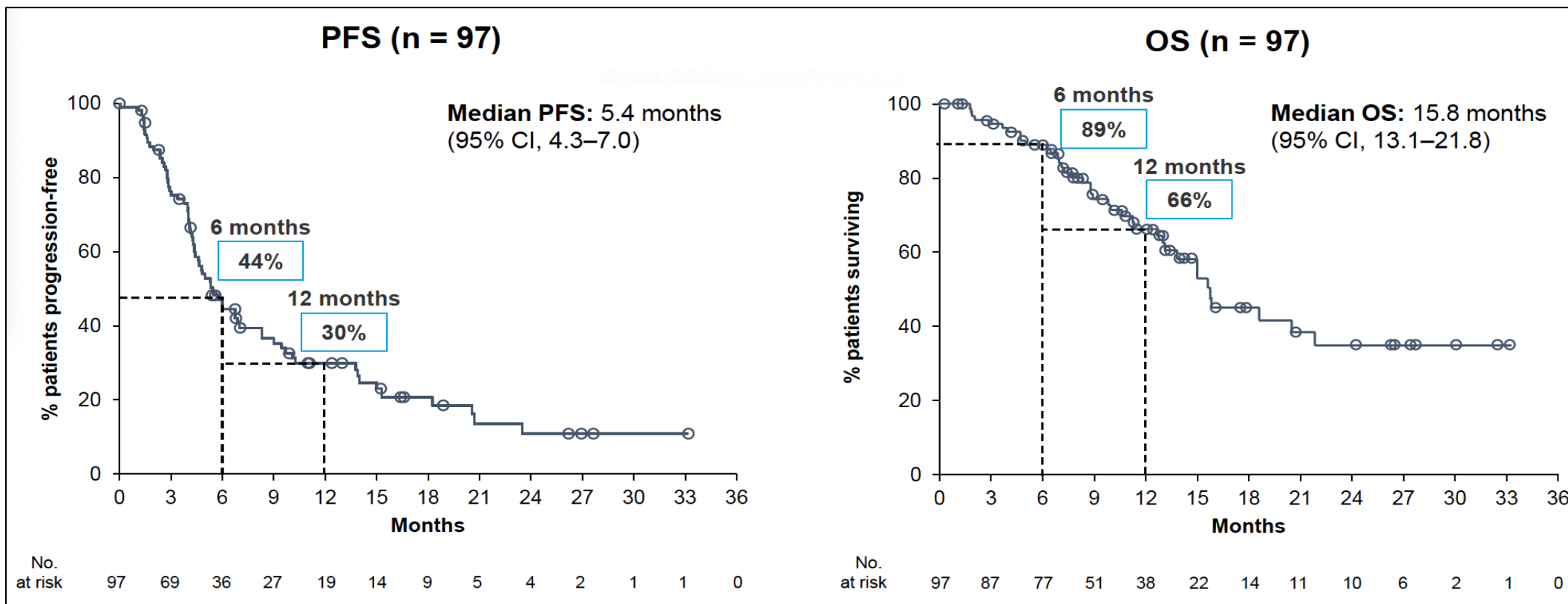
	Treatment-naïve	No prior MET therapy	Prior MET therapy
ORR	50%	46%	21%
CBR	88%	64%	66%

ORR = objective response rate; CBR = clinical benefit rate





# Progression-Free and Overall Survival



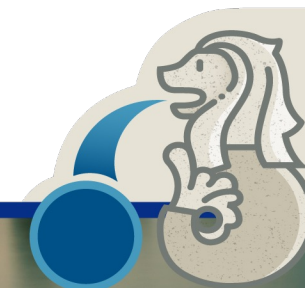




# Overcoming Secondary MET Resistance

	Drug name	Inhibitor type	RESISTANCE MUTATION ACTIVITY			
			Solvent-Front	Activation-Loop	Beta-9 strand	Hydrophobic-core
Target <u>active</u> state of MET	Crizotinib	DFG-Din	G1163R	Y1230C/H/N/S; D1231Y	D1228N/H/E	L1995V
	Tepotinib	DFG-Din	G1163E	Y1230X	D1228X	L1995V
	Capmatinib	DFG-Din	Active on cell lines	Y1230H	D1228N/H	L1995V
Target <u>inactive</u> state of MET	Savolitinib	DFG-Din	Active on cell lines	Y1230S	D1228N/V	L1995V
	Cabozantinib	DFG-Dout	Variably active on cell lines	Known to be active	D1228Y/A/N	L1195V; F1200L
	Merestinib	DFG-Dout	Active on cell lines	Known to be active	D1228Y	F1200I
	Glesatinib	DFG-Dout	H1094Y	Known to be active	D1228Y/A	L1195V

- Amivantamab is active *MET* exon 14 skipping-positive NSCLC, although response rates are higher in those without prior *MET*-directed therapy (ORR 46 vs 21%).
- Among TKI therapies targeting *MET*, there are type I and type II inhibitors (see table) that have variable activity against different resistance mutations.
- Further understanding of amivantamab's activity against *MET* resistance mutations will help identify the best sequence of use for different *MET*-directed targeted therapies.





# **KRYSTAL-1: Two-Year Follow-Up of Adagrasib (MRTX849) Monotherapy in Patients With Advanced/Metastatic KRAS<sup>G12C</sup>-Mutated NSCLC**

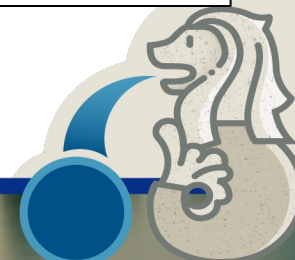
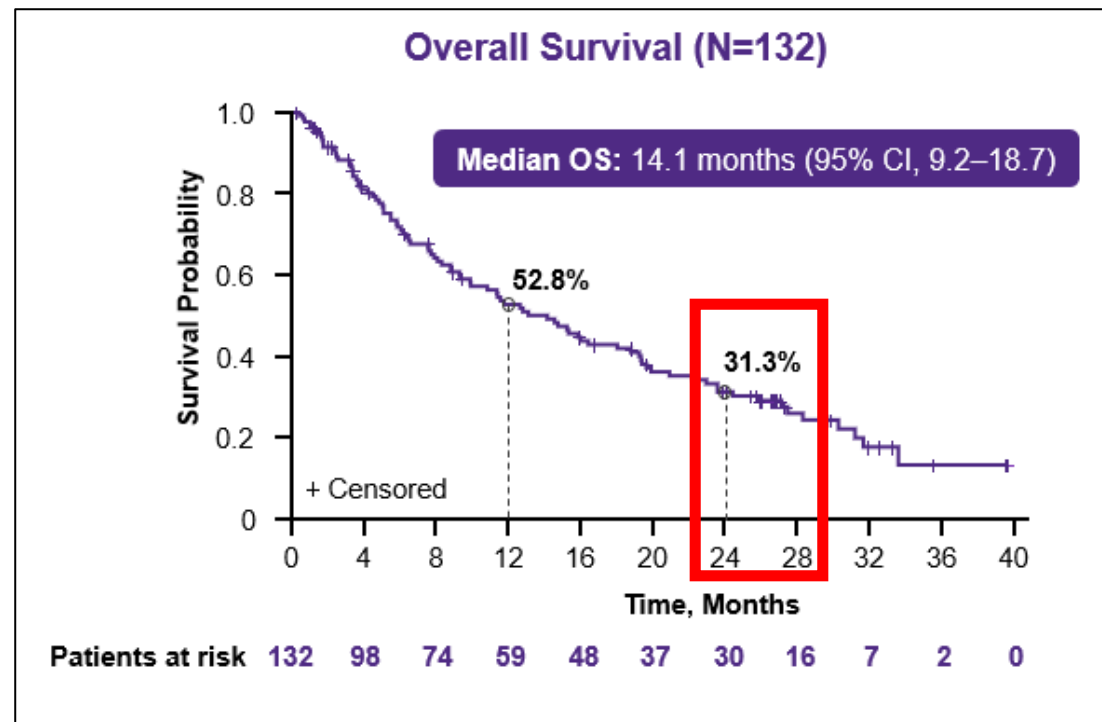
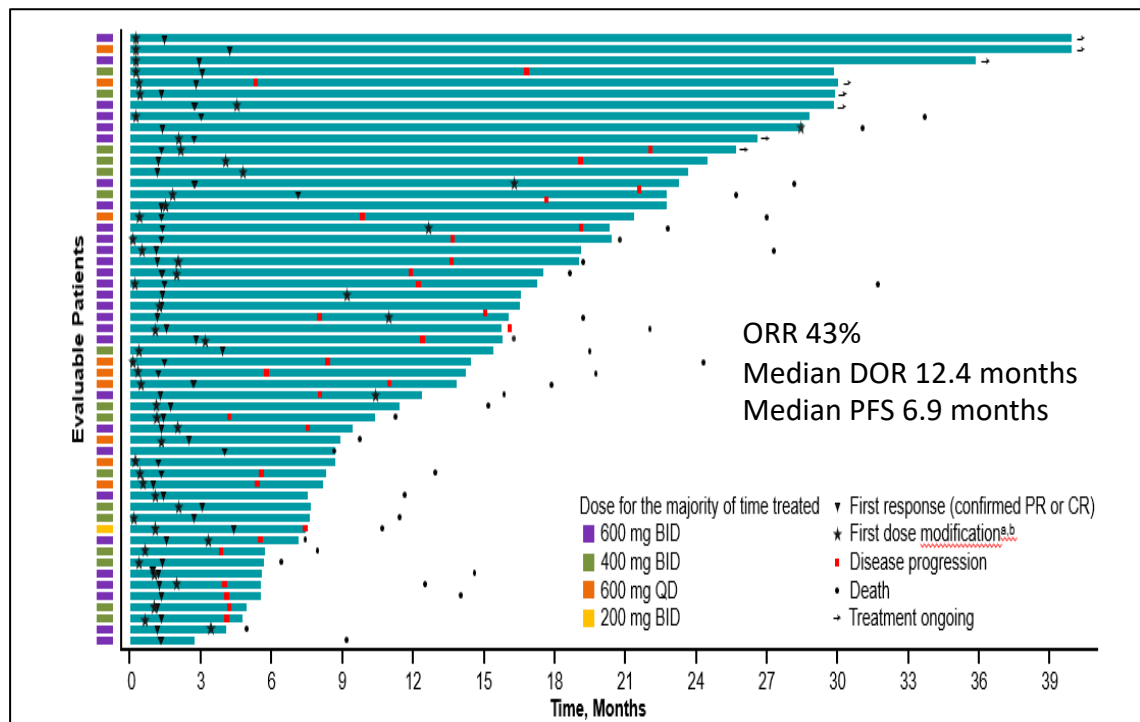
**Shirish M. Gadgeel<sup>1</sup>, Pasi A. Jänne<sup>2</sup>, Alexander I. Spira<sup>3</sup>, Sai-Hong Ignatius Ou<sup>4</sup>, Rebecca S. Heist<sup>5</sup>, Jose M. Pacheco<sup>6</sup>,  
Melissa L. Johnson<sup>7</sup>, Joshua K. Sabari<sup>8</sup>, Konstantinos Leventakos<sup>9</sup>, Joshua A. Mason<sup>10</sup>, Karen Velastegui<sup>10</sup>,  
Xiaohong Yan<sup>10</sup>, Richard Chao<sup>10</sup>, Gregory J. Riely<sup>11</sup>**

<sup>1</sup>Henry Ford Cancer Institute, Henry Ford Health System, Detroit, MI, USA; <sup>2</sup>Dana-Farber Cancer Institute, Boston, MA, USA; <sup>3</sup>Virginia Cancer Specialists, Fairfax, VA, USA; <sup>4</sup>US Oncology Research, The Woodlands, TX, USA; <sup>5</sup>University of California Irvine, Chao Family Comprehensive Center, Orange, CA, USA; <sup>6</sup>Massachusetts General Hospital, Boston, MA, USA; <sup>7</sup>University of Colorado Anschutz Medical Campus, Aurora, CO, USA; <sup>8</sup>Sarah Cannon Research Institute Tennessee Oncology, Nashville, TN, USA; <sup>9</sup>Perlmutter Cancer Center, New York University Langone Health, New York, NY, USA; <sup>10</sup>Mayo Clinic, Rochester, MN, USA; <sup>10</sup>Mirati Therapeutics, Inc., San Diego, CA, USA; <sup>11</sup>Memorial Sloan Kettering Cancer Center, Weill Cornell Medical College, New York, NY, USA.



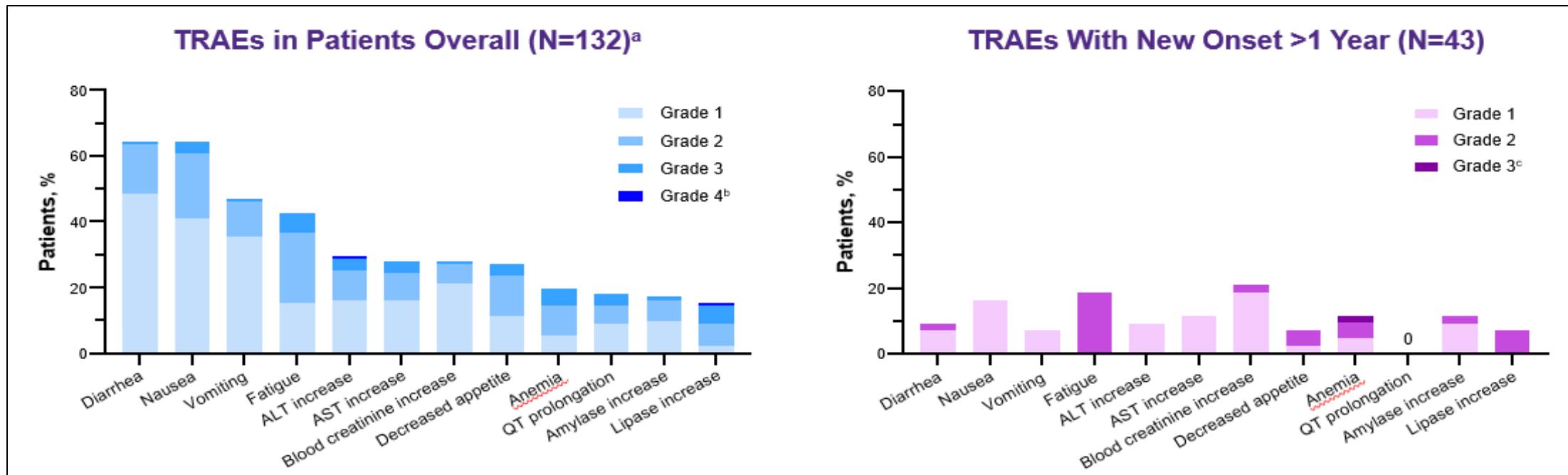


# Updated Efficacy and Survival With Adagrasib



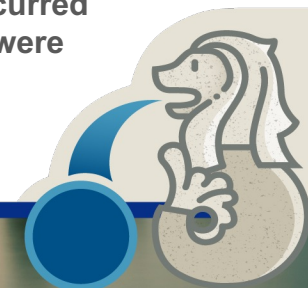


# Treatment-Related Adverse Events (TRAEs)



No grade  $\geq 3$  hepatic dysfunction in 12 patients receiving immunotherapy within 30 days before adagrasib

Late-onset TRAEs (defined as occurring >1 year) occurred in 29 patients (43 remained on therapy >1 year) and were mostly grade 1-2





# Comparing Adagrasib vs Sotorasib

	Sotorasib	Adagrasib
ORR	41%	43%
DOR	84%	80%
PFS	6.3 mos	6.9 mos
OS	12.5 mos	14.1 mos
2-yr OS	32.5%	31.3%

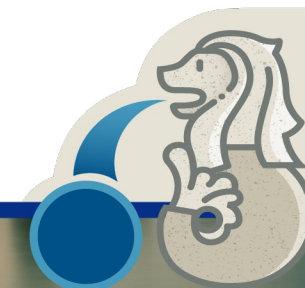
ORR = objective response rate; DCR = disease control rate;  
PFS = progression free survival; OS = overall survival

Is there a better CNS signal with adagrasib?

	Sotorasib	Adagrasib
iORR	19%	42%
iDCR	88%	90%
iPFS	NR <sup>a</sup>	6.3 mos

Stable, asymptomatic, untreated CNS metastases were eligible in CodeBreak100 and KRYSTAL-1

<sup>a</sup> Not reported





# CodeBreakK 101: Safety and Efficacy of Sotorasib with Carboplatin and Pemetrexed in *KRAS* G12C–Mutated Advanced NSCLC

Jeffrey M. Clarke,<sup>1</sup> Enriqueta Felip,<sup>2</sup> Bob T. Li,<sup>3</sup> Jose Ruffinelli,<sup>4</sup> Pilar Garrido,<sup>5</sup> Jon Zugazagoitia,<sup>6</sup> Sarah B. Goldberg,<sup>7</sup> Suresh S. Ramalingam,<sup>8</sup> Ivan Victoria,<sup>9</sup> Sonam Puri,<sup>10</sup> David Gandara,<sup>11</sup> Tracy Varrieur,<sup>12</sup> Sophie Edmonds,<sup>13</sup> Kerry Palmer,<sup>13</sup> Wendy Snyder,<sup>12</sup> Ramaswamy Govindan,<sup>14</sup> Igor Rybkin<sup>12</sup>

<sup>1</sup>Duke University, Durham, NC, USA; <sup>2</sup>Vall d'Hebron University Hospital, Barcelona, Spain; <sup>3</sup>Memorial Sloan Kettering Cancer Center, New York, NY, USA; <sup>4</sup>Institut Català d'Oncologia, Barcelona, Spain; <sup>5</sup>University Hospital Ramón y Cajal (IRYCIS), Madrid, Spain; <sup>6</sup>12 de Octubre Hospital, Madrid, Spain; <sup>7</sup>Yale School of Medicine, New Haven, CT, USA; <sup>8</sup>Winship Cancer Institute of Emory University, Atlanta, GA, USA; <sup>9</sup>Hospital Clínic i Provincial de Barcelona, Barcelona, Catalonia, Spain; <sup>10</sup>Huntsman Cancer Institute, Salt Lake City, UT, USA; <sup>11</sup>University of California Davis Comprehensive Cancer Center, Sacramento, CA, USA; <sup>12</sup>Amgen Inc., Thousand Oaks, CA, USA; <sup>13</sup>Amgen Ltd., Cambridge, UK; <sup>14</sup>Washington University School of Medicine, St. Louis, MO, USA





## Study Schema – Phase 1b CodeBreak 101

### Patient Cohorts:

- *Part 1 Cohort A*: prior PD(L)1 inhibitor and/or platinum-doublet chemotherapy
- *Part 2 Cohort A1*: no prior PD(L)1 inhibitor or platinum-doublet chemotherapy
- *Part 2 Cohort A2*: prior PD(L)1 monotherapy, platinum-doublet chemotherapy, or (neo)adjuvant chemotherapy

### Key eligibility criteria

- KRAS G12C–mutated advanced NSCLC, identified through molecular testing
- Measurable disease per RECIST v1.1
- ECOG  $\leq$  2
- No active brain metastases

### Induction phase

Sotorasib: 960 mg  
oral daily  
+  
Carboplatin: AUC 5  
IV Q3W\*  
+  
Pemetrexed: 500 mg/m<sup>2</sup>  
IV Q3W

### Maintenance phase<sup>†</sup>

Sotorasib: 960 mg  
oral daily  
+  
Pemetrexed: 500 mg/m<sup>2</sup>  
IV Q3W

Data were pooled and analyzed by exposure to prior therapy in the locally advanced/metastatic setting<sup>‡</sup>

**First-line (n = 25)**

**Second-line (n = 13)**

**Primary Endpoints:** Safety and tolerability (including DLT)  
**Secondary Endpoints:** Anti-tumor efficacy (ORR, DCR, DOR, TTR, OS, PFS, duration of SD) and PK

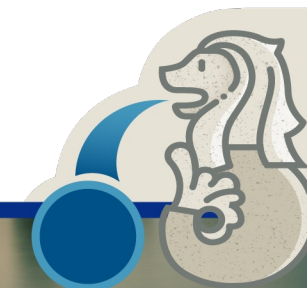




## Baseline Demographics

	Sotorasib + Carboplatin + Pemetrexed	
	First-line (n = 25)	Second-line (n = 13)
Median age, years (range)	64 (46, 82)	67 (44, 74)
Male, n (%)	12 (48)	8 (62)
ECOG performance score 0 / 1, n (%)	12 (48) / 13 (52)	7 (54) / 6 (46)
Stage III / IV at screening, n (%)	1 (4) / 24 (96)	0 / 13 (100)
History of brain metastasis, n (%)	4 (16)	3 (23)
Prior neoadjuvant / adjuvant chemotherapy, n (%)	2 (8)	2 (15)
Prior non-neoadjuvant / adjuvant chemotherapy, n (%)	0	6 (46)
Prior anti-PD-1 / anti-PD-L1 therapy, n (%)	0	11 (85)
PD-L1 protein expression, n (%)		
< 1%	16 (64)	4 (31)
1% – 49%	5 (20)	3 (23)
≥ 50%	3 (12)	6 (46)
Unknown	1 (4)	0

Aside from autoimmunity or patient choice, is there acceptable rationale for deferring upfront immunotherapy?

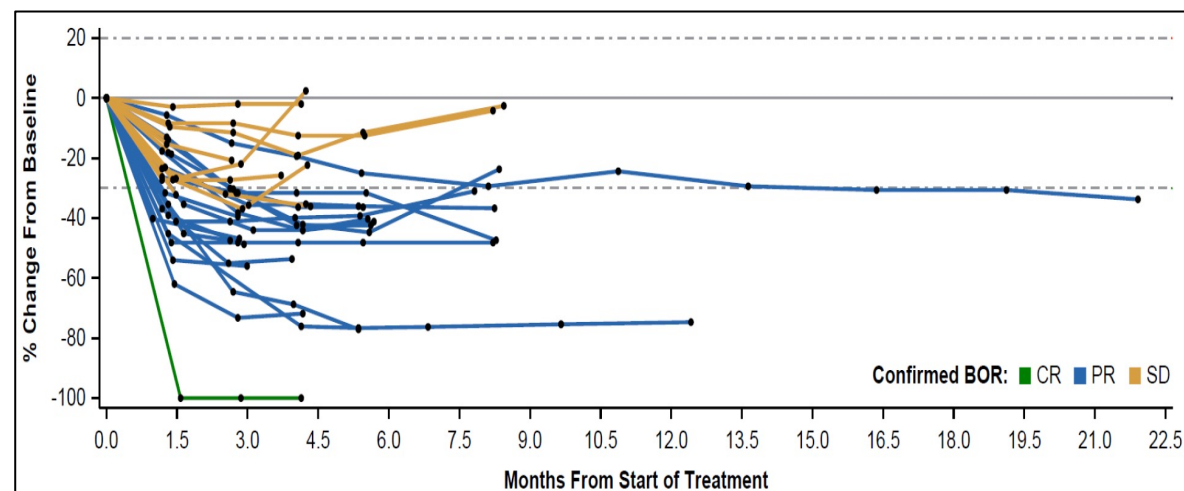






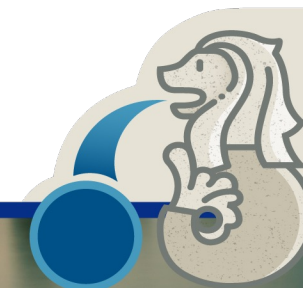
## Efficacy Results

Response by Investigator Assessments*	Sotorasib + Carboplatin + Pemetrexed	
	First-line (n = 20)	Second-line (n = 13)
<b>ORR, n (%)</b>	13 (65) <sup>†</sup>	7 (54)
<b>Best overall response, n (%)</b>		
Complete response	0	1 (8)
Partial response	13 (65)	6 (46)
Stable disease	7 (35)	4 (31)
Progressive disease	0	1 (8)
Not evaluable / not done	0	1 (8)
<b>DCR (95% CI)</b>	20 (100) (83.2, 100)	11 (85) (54.6, 98.1)



PFS and OS data have not matured but durable responses observed

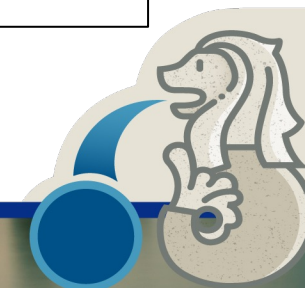
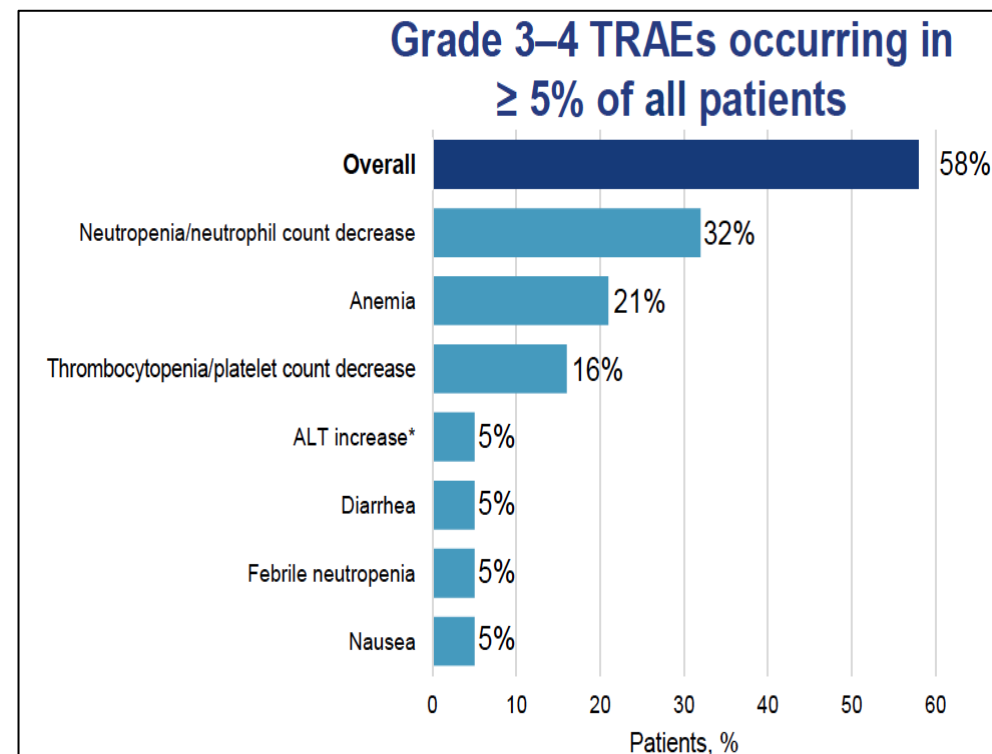
Favorable ORR compared to historical controls in the non-immunotherapy era





## Treatment-Related Adverse Events (TRAEs)

TRAEs, n (%)	Sotorasib + Carboplatin + Pemetrexed	
	First-line (n = 25)	Second-line (n = 13)
Any grade	23 (92)	13 (100)
Grade 1	4 (16)	1 (8)
Grade 2	7 (28)	2 (15)
Grade 3	10 (40)	8 (62)
Grade 4	2 (8)	2 (15)
TRAEs leading to discontinuation of any treatment	3 (12)	4 (31)
Discontinuation of sotorasib	2 (8)	2 (15)
Discontinuation of carboplatin	1 (4)	2 (15)
Discontinuation of pemetrexed	3 (12)	3 (23)





## Conclusions

- In the setting of FLAURA2, there is likely to be increased interest in other TKI-chemotherapy combinations.
- However, would recommend caution in pursuing this at the expense of immunotherapy for driver mutations other than *EGFR/ALK/ROS1* given the known benefit of immunotherapy-based regimens in the front-line metastatic setting and the known association of *KRAS G12C* with smoking history.
- The combination of chemotherapy plus sotorasib had an acceptable safety profile, and if studied further, may be best done so in the post-immunotherapy setting.





# KontRASt-01: Preliminary safety and efficacy of JDQ443 + TNO155 in patients with advanced, *KRAS G12C*-mutated solid tumors

**Marcelo V Negro**,<sup>1</sup> Philippe Cassier,<sup>2</sup> Benjamin Solomon,<sup>3</sup> Martin Schuler,<sup>4</sup> Kristoffer Staal Rohrberg,<sup>5</sup> Sara Cresta,<sup>6</sup> Christophe Doods,<sup>7</sup> Daniel SW Tan,<sup>8</sup> Herbert HF Loong,<sup>9</sup> Alessio Amatu,<sup>10</sup> Kimberly Krueger Assmann,<sup>11</sup> Lauren Fairchild,<sup>12</sup> Laurent Sansregret,<sup>13</sup> Liqiong Fan,<sup>12</sup> Anna F Farago,<sup>12</sup> Byoung Chul Cho<sup>14</sup>

1. MD Anderson Cancer Center, Houston, TX, USA; 2. Centre Léon Bérard, Lyon, France; 3. Peter MacCallum Cancer Centre, Melbourne, Australia; 4. West German Cancer Center, University Hospital Essen, Essen, Germany; 5. Department of Oncology, Copenhagen University Hospital – Rigshospitalet, Copenhagen, Denmark; 6. Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy; 7. University Hospitals Leuven, Leuven, Belgium; 8. National Cancer Centre Singapore, Duke-NUS Medical School, Singapore;

9. Department of Clinical Oncology, The Chinese University of Hong Kong, Hong Kong; 10. Niguarda Cancer Center, ASST Grande Ospedale Metropolitano Niguarda, Milan, Italy;

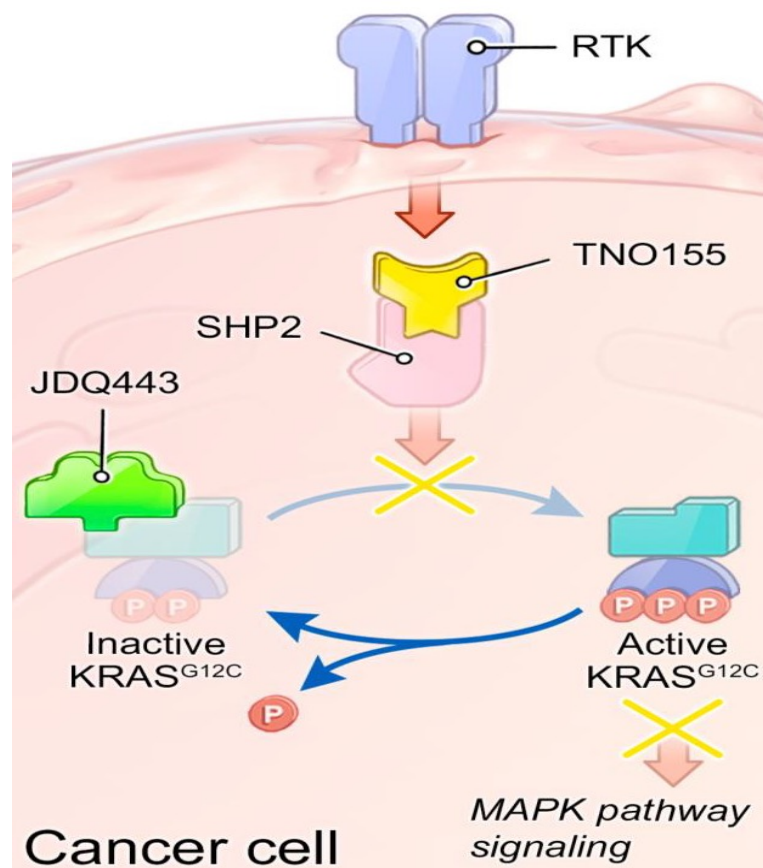
11. Novartis Institutes for BioMedical Research, East Hanover, NJ, USA; 12. Novartis Institutes for BioMedical Research, Cambridge, MA, USA;

13. Novartis Institutes for BioMedical Research, Basel, Switzerland; 14. Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, Republic of Korea.





## Rationale for SHP2 Inhibition



- SHP2 = Src homology region 2-containing protein tyrosine phosphatase 2 (encoded by *PTPN11* gene)
- Serves regulatory role in many signaling pathways including RAS/MAPK/ERK
- In the case of KRAS, activation of SHP2 leads to downstream activation of KRAS by converting it from its inactive GDP-bound state to an active GTP-bound state
- Based on this rationale, the safety and efficacy of a SHP2 inhibitor (TNO155) combined with a KRAS G12 inhibitor (JDQ443) was assessed



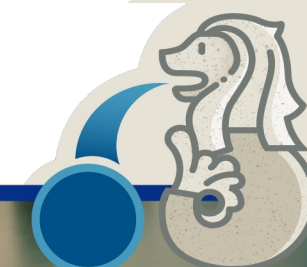


## Dosing and Treatment-Related Adverse Events (TRAEs)

\*\* TRAEs occurring in  $\geq 15\%$  of patients are shown \*\*

		JDQ443	+	TNO155		All dose levels, pooled (N=50)		JDQ443 200 mg BID continuous + TNO155 10 mg BID 2 weeks on/1 week off (n=15)		
					n	All grades	Grade $\geq 3$	All grades	Grade $\geq 3$	
Continuous		200 mg QD	+	20 mg QD	n=12	<b>Patients with any TRAE, n (%)</b>	<b>44 (88.0)</b>	<b>18 (36.0)</b>	<b>14 (93.3)</b>	<b>4 (26.7)</b>
		100 mg BID	+	20 mg BID	n=6					
		200 mg BID	+	10 mg BID	n=15					
		200 mg BID	+	15 mg BID	n=4					
		200 mg BID	+	20 mg BID	n=9					
		200 mg BID	+	10 mg BID	n=4					
					2 weeks on/1 week off					
					Cont.					
						Peripheral edema	20 (40.0)	–	6 (40.0)	–
						Neutropenia	15 (30.0)	7 (14.0)	2 (13.3)	1 (6.7)
						Thrombocytopenia	14 (28.0)	4 (8.0)	4 (26.7)	–
						Diarrhea	13 (26.0)	1 (2.0)	4 (26.7)	1 (6.7)
						Anemia	12 (24.0)	4 (8.0)	4 (26.7)	–
						Fatigue	9 (18.0)	–	5 (33.3)	–
						Increased blood creatine phosphokinase	8 (16.0)	1 (2.0)	1 (6.7)	–

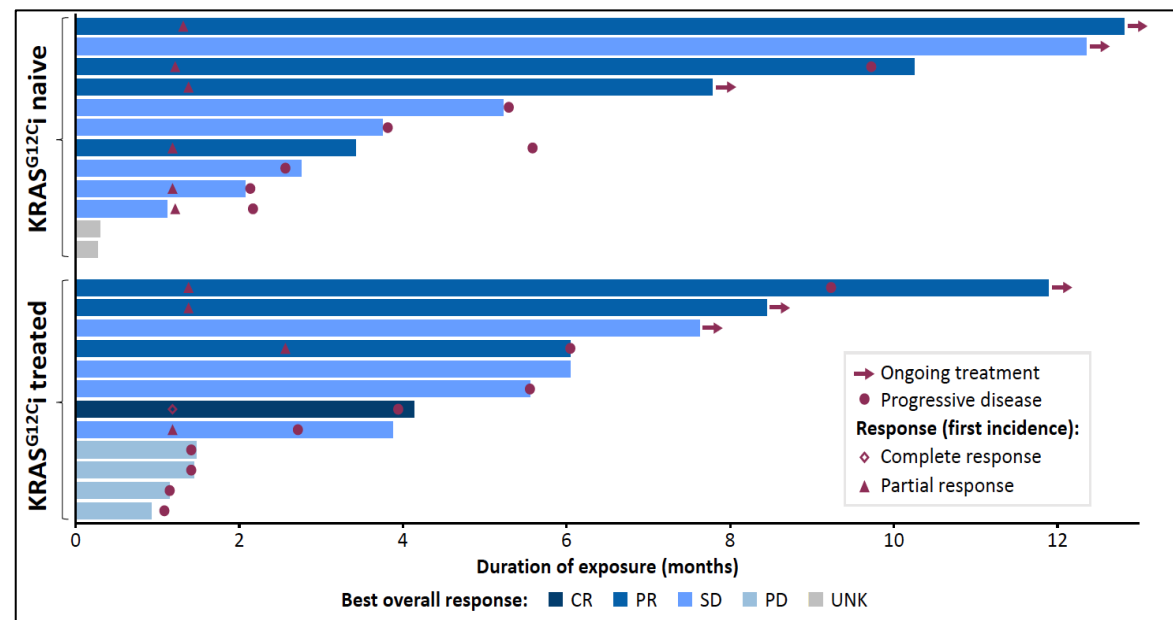
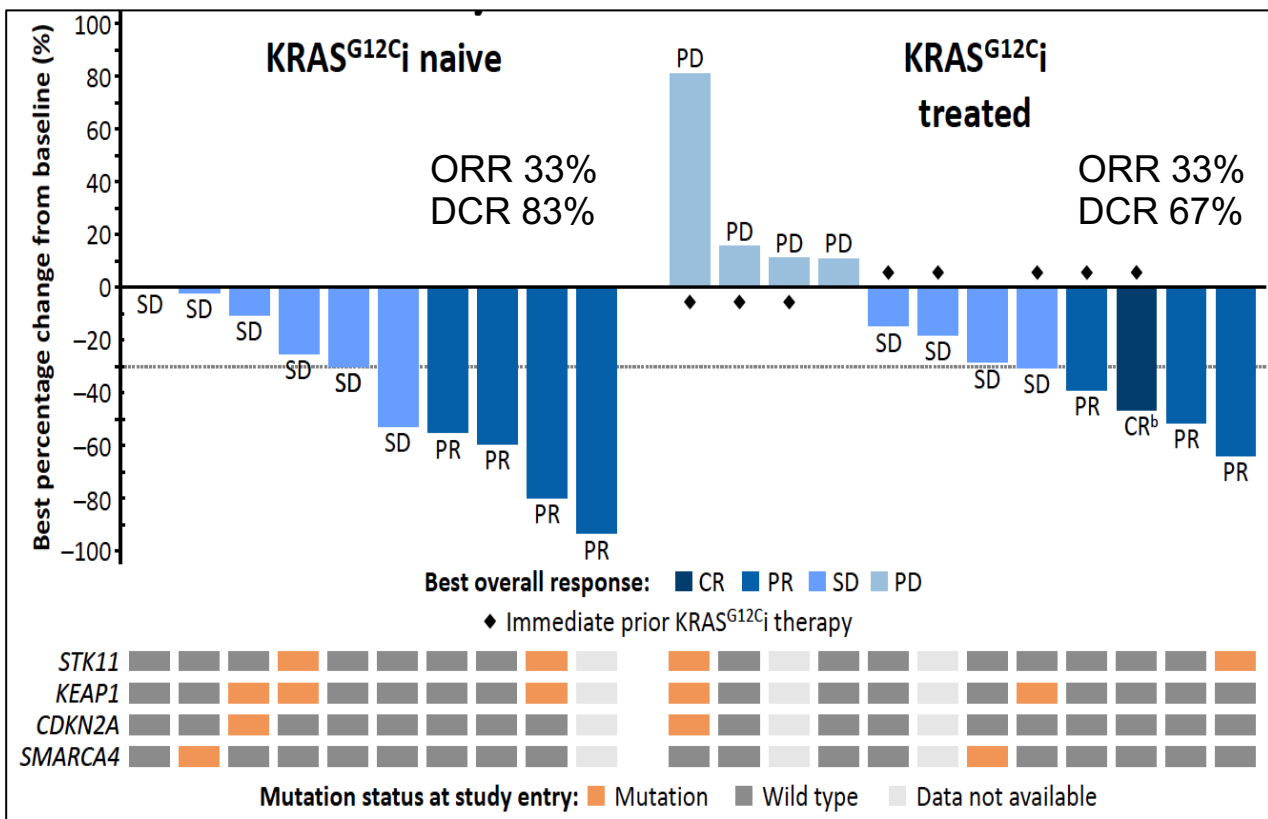
- No episodes of pneumonitis seen
- ALT and/or AST increased in 10-12% (grade  $\geq 3$  in 2%)





# Dosing and Treatment-Related Adverse Events (TRAEs)

N = 24 (median 3 prior lines of therapy)





## Conclusions

- SHP2 is a novel target in the treatment of metastatic NSCLC.
- In the case of heavily-treated *KRAS* G12C-positive NSCLC, combination of a SHP2 inhibitor plus a *KRAS* inhibitor resulted in a promising response rate of 30% with durable responses ongoing.
- Novel therapies are needed in the treatment of *KRAS* G12C-positive NSCLC, both before and after existing *KRAS* inhibitors (eg, sotorasib, adagrasib), and SHP2 inhibition in this setting warrants further study.







# Trastuzumab Deruxtecan in Patients With *HER2*-Mutant Metastatic Non-Small Cell Lung Cancer: Primary Results of DESTINY-Lung02

Pasi A. Jänne,<sup>a</sup> Yasushi Goto, Toshio Kubo, Kiichiro Ninomiya, Sang-We Kim, David Planchard, Myung-Ju Ahn, Egbert F. Smit, Adrianus Johannes de Langen, Maurice Pérol, Elvire Pons-Tostivint, Silvia Novello, Hidetoshi Hayashi, Junichi Shimizu, Dong-Wan Kim, Kaline Pereira, Fu-Chih Cheng, Ayumi Taguchi, Yingkai Cheng, and Koichi Goto

On behalf of the DESTINY-Lung02 investigators





## Rationale and Study Schema

### DESTINY-Lung01: Enhertu 6.4 mg/kg

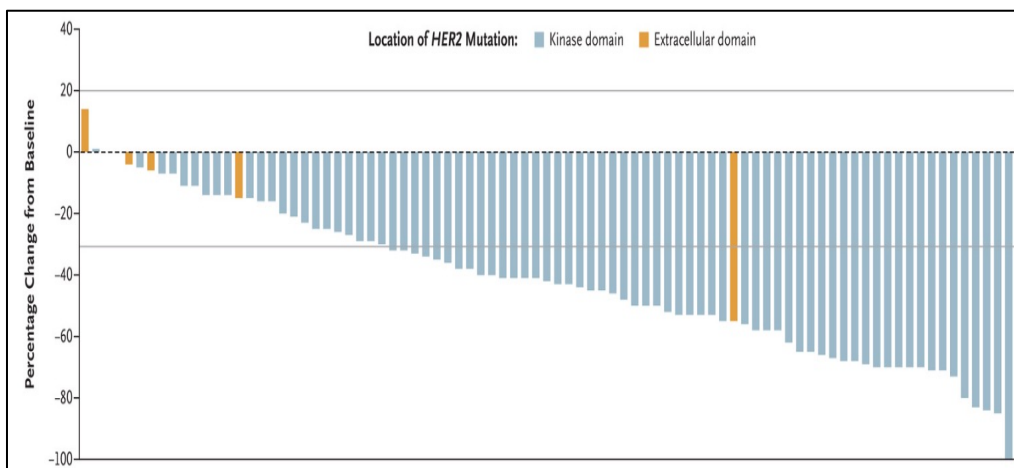


Table S5. Adjudicated Drug-related Interstitial Lung Disease.

	Patients (N = 91)					Total
	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	
Adjudicated drug-related interstitial lung disease, n (%) <sup>*</sup>	3 (3.3)	15 (16.5)	4 (4.4)	0	2 (2.2) <sup>†</sup>	24 (26.4)

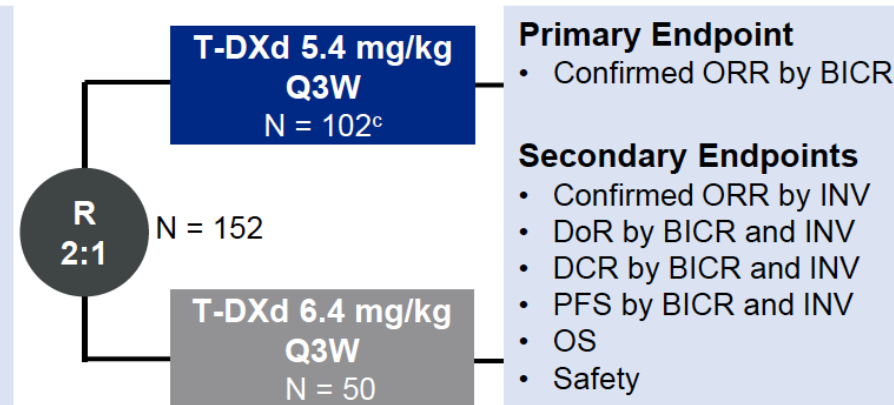
#### Key Eligibility Criteria<sup>a</sup>

- Metastatic *HER2*<sup>m</sup> NSCLC
- ≥1 prior anticancer therapy (2L+), including platinum-based chemotherapy
- Measurable disease per RECIST v1.1
- ECOG PS of 0 or 1

#### Stratification Factor:

- Prior anti-PD-(L)1 treatment

### DESTINY-Lung02

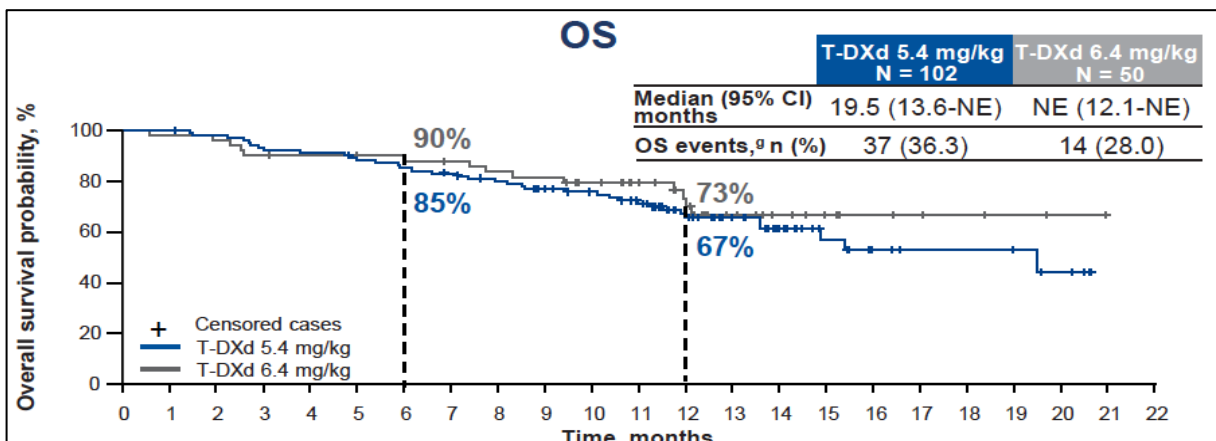
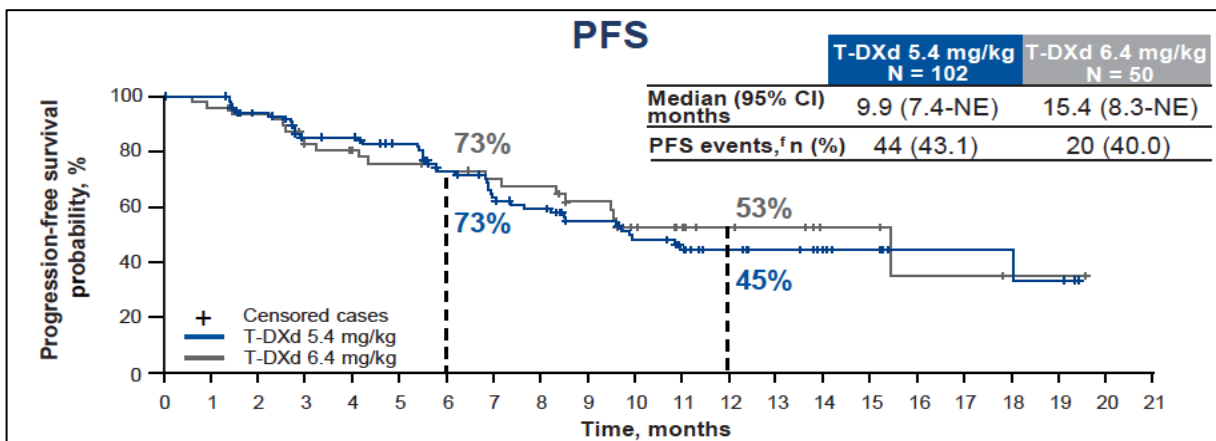


Patients and investigators were blinded to the dose level





## Comparable Efficacy and Survival Between Dose Levels



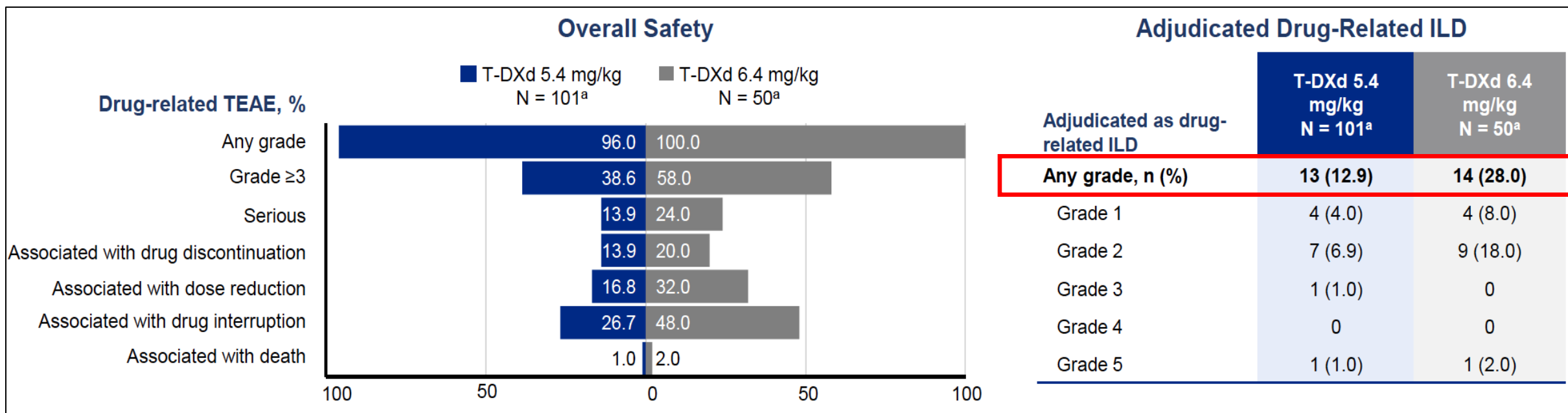
Efficacy summary	T-DXd 5.4 mg/kg N = 102	T-DXd 6.4 mg/kg N = 50
<b>Confirmed ORR,<sup>a</sup> n (%) [95% CI]</b>	<b>50 (49.0) [39.0-59.1]</b>	<b>28 (56.0) [41.3-70.0]</b>
CR   PR	1 (1.0)   49 (48.0)	2 (4.0)   26 (52.0)
SD   PD	45 (44.1)   4 (3.9)	18 (36.0)   2 (4.0)
Non-evaluable <sup>b</sup>	3 (2.9)	2 (4.0)
<b>DCR,<sup>c</sup> n (%) [95% CI]</b>	<b>95 (93.1) [86.4-97.2]</b>	<b>46 (92.0) [80.8-97.8]</b>
Median DoR, <sup>d,e</sup> months (95% CI)	16.8 (6.4-NE)	NE (8.3-NE)
Median TTIR, <sup>d</sup> months (range)	1.8 (1.2-7.0)	1.6 (1.2-11.2)
Median follow-up, months (range)	11.5 (1.1-20.6)	11.8 (0.6-21.0)

ORR = objective response rate; DCR = disease control rate; DOR = duration of response; TTIR = time to initial response





# Safety Comparison Between Dose Levels



Rates of most side-effects, including drug-related interstitial lung disease, were lower in the T-DXd 5.4 mg/kg group





## Conclusions

- Trastuzumab-deruxtecan (TDXd) remains an important option in the treatment of patients with *HER2*-mutated NSCLC.
- TDXd at 5.4 mg/kg q3 weeks appears to be better tolerated without a significant difference in efficacy or survival compared to the higher 6.4 mg/kg q3 week dosing.
- While rates of pneumonitis may be lower at the 5.4 mg/kg q3 week dose, a high index of suspicion and careful monitoring remain necessary in all patients.

