## A TREATMENT FOR PATIENTS WITH METASTATIC NSCLC HARBORING METEX14 SKIPPING+ ALTERATIONS

US-TEP-00632

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NSCLC, non-small cell lung cancer; USPI, United States Prescribing Information.

### **Important Notices**

- Tepotinib is being investigated for treatment of various diseases. Efficacy and safety of this product is still under investigation in various indications. Regulatory approval is dependent on the completion of the study programs and review by local regulatory authorities and varies from country to country. Please check the <u>US Prescribing Information</u> label for US-specific information. Clinical trial information is available at www.clinicaltrials.gov
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### **FDA-Approved Indication and Usage**

- TEPMETKO® (tepotinib) is indicated for the treatment of adult patients with metastatic non-small cell lung cancer (mNSCLC) harboring mesenchymal-epithelial transition (*MET*) exon 14 skipping alterations
- This indication is approved under accelerated approval based on overall response rate and duration
  of response. Continued approval for this indication may be contingent upon verification and
  description of clinical benefit in confirmatory trials
- The recommended dosage of tepotinib is 450 mg (two 225 mg tablets) orally once daily with food until disease progression or unacceptable toxicity

See full prescribing information at <u>TEPMETKO.com</u>





## **NSCLC DISEASE AND BACKGROUND**



### Lung Cancer: Key US 2022 Statistics



\*Calculation: number of patients per year (5,966)/days in calendar year (365)=16.

NSCLC, non-small cell lung cancer; MET, mesenchymal-epithelial transition; METex14, MET exon 14.

References: 1. Cancer Stat Facts: Lung and Bronchus Cancer. SEER Program, National Cancer Institute. https://seer.cancer.gov/statfacts/html/lungb.html (accessed October 2022); 2. Suidan AM, et al. J Glob Oncol. 2019;5:1–8; 3. Key Statistics for Lung Cancer. American Cancer Society. https://www.cancer.org/cancer/lung-cancer/about/key-statistics.html (accessed October 2022); 4. Salgia R, et al. Can Treat Rev. 2020;87:102022.

EMD

### MET Signaling Can Drive Tumor Growth and Progression<sup>1</sup>



AKT, protein kinase B; c-Cbl, casitas B-lineage lymphoma; ERK, extracellular regulatory kinase; HGF, hepatocyte growth factor; JAK, Janus kinase; MET, mesenchymal-epithelial transition; *MET*ex14, *MET* exon 14; PI3K, phosphoinositide 3-kinase; STAT, signal transducer and activator of transcription.

**References: 1.** Paik PK, et al. N Engl J Med. 2020;383(10):1-40; **2.** Tong JH, et al. Clin Cancer Res. 2016;22(12):3048-3056; **3.** Liang H, Wang M. Onco Targets Ther. 2020;13:2491-2510; **4.** Drilon A, et al. J Thorac Oncol. 2017;12(1):15-26; **5.** Wu YL, et al. Cancer Treat Rev. 2017; 61:70-81.



### **METex14 Skipping Alterations Are Primary Oncogenic Drivers in NSCLC<sup>1-6</sup>**



Patients with METex14 skipping alterations:

Have been associated with advanced disease and a poor prognosis<sup>2</sup>





Are more frequently current or former smokers (60%) than never smokers  $(40\%)^6$ 

#### **MET**ex14 skipping is the primary oncogenic driver in:

- 3% of adenocarcinomas<sup>4,5</sup>
- 2% of squamous cell carcinomas<sup>5</sup>
- 8% of sarcomatoid carcinomas<sup>5</sup>



Average age at diagnosis in patients with *MET*ex14 skipping alterations<sup>1</sup>:

~74 years

Testing to identify patients with *MET*ex14 skipping alterations can help inform treatment decisions<sup>2,3</sup>

ALK, anaplastic lymphoma kinase gene; BRAF, proto-oncogene B-Raf; EGFR, epidermal growth factor receptor gene; KRAS, Ki-ras2 gene; MET, mesenchymal-epithelial transition; METex14, MET exon 14; NSCLC, non-small cell lung cancer; ROS1, ROS proto-oncogene 1,

References: 1. Tong JH, et al. Clin Cancer Res. 2016;22(12):3048-3056; 2. Awad MM, et al. Lung Cancer. 2019;133:96-102; 3. Salgia R. Mol Cancer Ther. 2017;16(4):555-565; 4. Frampton GM, et al. Cancer Discov. 2015;5:850-859; 5. Schrock AB, et al. J Thorac Oncol. 2016;11:1493-5102; 6. Wolf J, et al. Presented at ENA, 2018, Poster 403.



## IMPORTANT SAFETY INFORMATION



### **Important Safety Information**

#### Interstitial lung disease/pneumonitis

- Tepotinib can cause **ILD/pneumonitis**, which can be fatal
- Monitor patients for new or worsening pulmonary symptoms indicative of ILD/pneumonitis (eg, dyspnea, cough, fever)
- Immediately withhold tepotinib in patients with suspected ILD/pneumonitis and permanently discontinue if no other potential causes of ILD/pneumonitis are identified
- ILD/pneumonitis occurred in 2.2% of patients treated with tepotinib, with one patient experiencing Grade 3 or higher event; this event resulted in death

#### **Hepatotoxicity**

- Tepotinib can cause **hepatotoxicity**, which can be fatal
- Monitor liver function tests (including ALT, AST, and total bilirubin) prior to the start of tepotinib, every 2 weeks during the first 3 months of treatment, then once a month or as clinically indicated, with more frequent testing in patients who develop increased transaminases or total bilirubin
- Based on the severity of the adverse reaction, withhold, dose reduce, or permanently discontinue tepotinib
- Increased ALT/AST occurred in 13% of patients treated with tepotinib. Grade 3 or 4 increased ALT/AST occurred in 4.2% of patients
- A fatal adverse reaction of hepatic failure occurred in one patient (0.2%)
- The median time-to-onset of Grade 3 or higher increased ALT/AST was 30 days (range 1–178)





### **Important Safety Information (continued)**

#### **Embryo-fetal toxicity**

- Tepotinib can cause embryo-fetal toxicity
- Based on findings in animal studies and its mechanism of action, tepotinib can cause fetal harm when administered to a pregnant woman. Advise pregnant women of the potential risk to a fetus
- Advise females of reproductive potential or males with female partners of reproductive potential to use effective contraception during treatment with tepotinib and for one week after the final dose

#### **Drug interactions**

- Avoid concomitant use of tepotinib with dual strong inhibitors of CYP3A and P-gp inhibitors and strong CYP3A inducers
- Avoid concomitant use of tepotinib with certain
   P-gp substrates where minimal concentration changes may lead to serious or life-threatening toxicities. If concomitant use is unavoidable, reduce the P-gp substrate dosage if recommended in its approved product labeling

#### **Fatal adverse reactions**

• **Fatal adverse reactions** occurred in one patient (0.4%) due to pneumonitis, in one patient (0.4%) due to hepatic failure, and in one patient (0.4%) due to dyspnea from fluid overload

#### **Serious adverse reactions**

 Serious adverse reactions occurred in 45% of patients who received tepotinib. Serious adverse reactions in >2% of patients included pleural effusion (7%), pneumonia (5%), edema (3.9%), dyspnea (3.9%), general health deterioration (3.5%), pulmonary embolism (2%), and musculoskeletal pain (2%)

#### Most common adverse reactions

 The most common adverse reactions (≥20%) in patients who received tepotinib were edema, fatigue, nausea, diarrhea, musculoskeletal pain, and dyspnea



### **Important Safety Information (continued)**

#### **Clinically relevant adverse reactions**

 Clinically relevant adverse reactions in <10% of patients who received tepotinib included ILD/pneumonitis, rash, fever, dizziness, pruritis, and headache

#### **Selected laboratory abnormalities**

 Selected laboratory abnormalities (≥20%) from baseline in patients receiving tepotinib in descending order were decreased albumin (76%), increased creatinine (55%), increased ALP (50%), decreased lymphocytes (48%), increased ALT (44%), increased AST (35%), decreased sodium (31%), decreased hemoglobin (27%), increased potassium (25%), increased GGT (24%), increased amylase (23%), and decreased leukocytes (23%)

#### Most common Grade 3-4 laboratory abnormalities

 The most common Grade 3-4 laboratory abnormalities (≥2%) in descending order were decreased lymphocytes (11%), decreased albumin (9%), decreased sodium (8%), increased GGT (5%), increased amylase (4.6%), increased ALT (4.1%), increased AST (2.5%), and decreased hemoglobin (2%)

#### **Clinically relevant laboratory abnormality**

 A clinically relevant laboratory abnormality in <20% of patients who received tepotinib was increased lipase in 18% of patients, including 3.7% Grades 3 to 4

ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase; ILD, interstitial lung disease. **Reference:** TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.



## TEPOTINIB WARNINGS AND PRECAUTIONS



# **Tepotinib Warnings and Precautions: Interstitial Lung Disease/Pneumonitis**

		ILD/pneumon	pneumonitis, which can be fatal, occurred in patients treated with tepotinib						
		ILD/pneumonitis All grades ≥Grade 3	5	2.2% 1 case; this event resulted in death					
		Discontinuation ILD/pneumonitis	of tepotinib due to	0.9% (n=4)					
	Ċ		Monitor patients for new or worsening pulmonary symptoms indicative of ILD/pneumonitis (eg, dyspnea, cough, fever)						
		Immed perma identifi	iately <b>withhold</b> tepotinib in patients <b>nently discontinue</b> if no other pote ed	s with suspected ILD/pneumonitis and ential causes of ILD /pneumonitis are					



### **Tepotinib Warnings and Precautions: Hepatotoxicity**

	Hepatotoxicity occurred in patients treated with tepotinib								
	Increased ALT/increased AST All grades Grade 3 or 4 increased ALT/AST	13% 4.2%							
	Fatal AR of hepatic failure	0.2% (n=1)							
	Discontinuation of tepotinib due to increased ALT/AST	0.7% (n=3)							
	Median time to onset of Grade $\geq$ 3 increased ALT/AST	30 days (range: 1-178)							

Monitor liver function tests (including ALT, AST, and total bilirubin) prior to the start of tepotinib, every 2 weeks during the first 3 months of treatment, then
 once a month or as clinically indicated, with more frequent testing in patients who develop increased transaminases or bilirubin\*

Based on the severity of the AR, withhold, dose reduce, or permanently discontinue tepotinib



### **Tepotinib Warnings and Precautions: Embryo-Fetal Toxicity**



 Oral administration of tepotinib to pregnant rabbits during the period of organogenesis resulted in malformations (teratogenicity) and anomalies at exposures less than the human exposure based on AUC at the 450 mg daily clinical dose



Advise pregnant women of the potential risk to a fetus Advise females of reproductive potential or males with female partners of reproductive potential to use effective contraception during treatment with tepotinib and for one week after the final dose



## TEPOTINIB DOSAGE AND ADMINISTRATION



### **Tepotinib Dosage and Administration: Patient Selection**

- Select patients for treatment with tepotinib based on the presence of METex14 skipping alterations in plasma or tumor specimens
- Testing for the presence of *MET*ex14 skipping alterations in plasma specimens is recommended only in patients for whom a tumor biopsy cannot be obtained
- If an alteration is not detected in a plasma specimen, re-evaluate the feasibility of biopsy for tumor tissue testing
- An FDA-approved test for the detection of *MET*ex14 skipping alterations in NSCLC to select patients for treatment with tepotinib is not available



### **Tepotinib Dosage and Administration: Recommended Dosage and Modification**

#### **Recommended dosage**



- The recommended dosage of tepotinib is 450 mg\* (two 225 mg tablets) orally **once daily with food** until disease progression or unacceptable toxicity
- Instruct patients to take their dose at approximately the same time every day and to swallow tablets whole. Do not chew, crush, or split tablets



- Advise patients not to make up a missed dose within 8 hours of the next scheduled dose
- If vomiting occurs after taking a dose, advise patients to take the next dose at the scheduled time

#### **Dose modifications for ARs**

- The recommended dose reduction of tepotinib for the management of ARs is 225 mg orally once daily
- Permanently discontinue tepotinib in patients who are unable to tolerate the 225 mg dose
- Management of some ARs may require temporary interruption or permanent discontinuation
- See the full Prescribing Information for recommended dosage modifications of tepotinib



## VISION CLINICAL TRIAL



### VISION: A Single-arm, Open-label, Multicenter, Non-randomized, Multicohort Study

#### Tepotinib in adult patients with advanced or metastatic NSCLC harboring *MET*ex14 skipping alterations



\*Identification of *MET*ex14 skipping was prospectively determined using central laboratories employing either a PCR-based or NGS-based clinical trial assay using tissue and/or plasma samples. An FDA-approved test for detection of *MET*exon14 skipping alterations in NSCLC for selecting patients for treatment with tepotinib is not available. <sup>1</sup>Cohort A enrollment began on September 13, 2016. <sup>1</sup>Cohort C enrolment began on August 8, 2019. <sup>§4</sup>50 mg active moiety. <sup>1</sup>Per IRC for February 20, 2022, cut-off.<sup>2,3</sup> <sup>§</sup>Composite of radiographic responses, corticosteroid use, and clinical status, giving a more comprehensive overview of the patient compared with RECIST.<sup>4</sup> For patients with non-measurable lesions only (enhancing and non-enhancing NTLs), non-CR/non-PD was defined as a best objective response of disease control, ie, persistence of at least one non-progressing NTL. Brain imaging had no mandatory schedule and, as such, data for this analysis were incomplete, and confirmation of response was not required.

1L, first line; 2L, second line; 3L, third line; *ALK*, anaplastic lymphoma kinase; BIRC, Blinded Independent Review Committee; BOR, best overall response; CNS, central nervous system; CR, complete response; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; *EGFR*, epidermal growth factor receptor; FDA, US Food and Drug Administration; HGF, hepatoecyte growth factor; IRC, independent review committee; MET, mesenchymal-epithelial transition; *MET*ex14, *MET* exon 14; NCI-CTCAE, National Cancer Institute - Common Terminology Criteria for Adverse Events; NGS, next-generation sequencing; NSCLC, non-small cell lung cancer; NTL, non-target lesion; ORR, objective response rate; OS, overall survival; PCR, polymerase chain reaction; PD, progressive disease; PFS, progression-free survival; PR, partial response; QD, once daily; RANO-BM, Response Assessment in Neuro-Oncology Brain Metastases; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease.



References: 1. TEPMETKO<sup>®</sup> (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021; 2. Smit EF, et al. Presented at ESMO, 2022, Abstract 985P; 3. Thomas M, et al. Presented at WCLC, 2022. Abstract OA03.05. 4. Lin NU, et al. Lancet Oncol. 2015;16(6):e270-e278.

### **METex14 Skipping Patient Populations in VISION**

#### Main data cut-offs:

- Primary efficacy analysis (not included in this deck): January 2020 data cut-off when 99/152 patients in Cohort A had ≥9 months of follow-up data<sup>1</sup>
- Data submitted to FDA and included in USPI (full Cohort A and safety data for Cohorts A+C): July 2020 main data cut-off<sup>2,3</sup>
- Updated analysis: February 2021 (see Backup section)<sup>4,5</sup> and February 2022 data cut-offs<sup>6,7</sup>



2L, second line; 2L+. second-or-later line; FDA, US Food and Drug Administration; METex14, MET exon 14; USPI, United States Prescribing Information.

References: 1. Paik PK, et al. N Engl J Med. 2020;383(10):931–943; 2. TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021; 3. Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126; 4. Thomas M, et al. Presented at DGHO Annual Meeting, 2021, Abstract 52; 5. Garassino M, et al. Presented at AMCP Annual Meeting, 2022, Abstract C6. 6. Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05; 7. Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



### Timeline



USPI, United States Prescribing Information.

References: 1. Paik PK, et al. N Engl J Med. 2020;383(10):931–943; 2. Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126; 3. TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021; 4. Thomas M, et al. Presented at DGHO Annual Meeting, 2021, Abstract 52; 5. Garassino M, et al. Presented at AMCP Annual Meeting, 2022, Abstract C6. 6. Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05; 7. Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



## PIVOTAL COHORT A EFFICACY AND SAFETY DATA



### **Patient Characteristics**

#### VISION Cohort

#### July 2020 cut-off



#### Age and ECOG PS

- Median age of 73 years (range 41–94)
- 27% had ECOG PS 0
- 73% had ECOG PS 1

#### **Disease characteristics**



- **98%** of patients had metastatic disease
- 86% had adenocarcinoma histology
- 10% had CNS metastases

#### **Race and gender**

71% White25% Asian

- 52% male
- 48% female



#### Smoking status

• 43% never smokers

#### Line of therapy

- 45% (n=69) treatment naive
- 55% (n=83) previously treated
- 89% prior platinum-based chemotherapy

#### METex14 skipping alterations were identified through PCR or NGS testing\*

- 58% of patients were enrolled by tissue (RNA-based) testing
- 65% of patients were enrolled by plasma (ctDNA-based) testing

\*Some patients tested positive using both methodologies.

CNS, central nervous system; ctDNA, circulating tumor DNA; ECOG PS, Eastern Cooperative Oncology Group performance status; *MET*ex14, *MET* exon 14; NGS, next-generation sequencing; PCR, polymerase chain reaction. **Reference:** TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.



VISION Cohort

July 2020 cut-off

### **Baseline Characteristics**

	Treatment-naive (n=69)	Previously treated (n=83)	Overall (n=152)
Age, median years (range)	74.0 (56-94)	72.6 (41-88)	73.1 (41–94)
Male/female, %	52.2/47.8	51.8/48.2	52.0/48.0
Race*, %			
White	81.2	62.7	71.1
Asian	17.4	31.3	25.0
ECOG PS 0/1, %	36.2/63.8	19.3/80.7	27.0/73.0
Smoking history yes/no <sup>+</sup> , %	62.3/37.7	43.4/47.0	52.0/42.8
Histology <sup>‡</sup> , %			
Adenocarcinoma	84.1	88.0	86.2
Squamous	8.7	10.8	9.9
Brain metastases at baseline <sup>§</sup> , %	14.5	15.7	15.1

\*Race was unknown or missing in 4 patients; 1 patient was Black/African American, and 1 patient was 'other'. +Smoking history was missing in 8 patients. +Two patients had adenosquamous histology (1 treatment naive and 1 previously treated),

3 patients had sarcomatoid (all treatment naive), and 1 patient had NSCLC-NOS (treatment naive). §Baseline brain metastases identified by IRC or investigator. ECOG PS, Eastern Cooperative Oncology Group performance status; IRC, Independent Review Committee; NSCLC-NOS, non-small cell lung cancer – not otherwise specified. Reference: Paik PK, et al. Presented at WCLC, 2020, Presentation MA11.05.



### **Mutational Profile at Baseline**

VISION Cohort

July 2020 cut-off



*EGFR*, epidermal growth factor receptor gene; *MET*, mesenchymal-epithelial transition **Reference:** Paik PK, et al. Presented at ASCO Annual Meeting, 2021, Abstract 9012.





\*Confirmed responses. <sup>†</sup>Product-limit (Kaplan-Meier) estimates, 95% CI for the median using the Brookmeyer and Crowley method. BIRC, Blinded Independent Review Committee; CI, confidence interval; DOR, duration of response; mDOR, median duration of response; mo, months; NE, not estimable; ORR, objective response rate. **Reference:** TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.



### **Physician-Evaluated Responses to Prior Therapies Among Previously Treated Patients**

	Most recent anticancer therapy (n=83)	Prior Pt-based CT (n=74)	Prior ICI + Pt-based CT (n=10)
Best response, n (%)			
Complete response	1 (1.2)	2 (2.7)	0
Partial response	20 (24.1)	19 (25.7)	3 (30.0)
Stable disease	25 (30.1)	22 (29.7)	1 (10.0)
Progressive disease	24 (28.9)	21 (28.4)	3 (30.0)
Non-complete response/non-progressive disease	1 (1.2)	1 (1.4)	0
Not assessable/unknown	12 (14.5)	9 (12.2)	3 (30.0)
<b>DOR</b> Patients for whom data are available Median longest DOR, months (range)	n=16 4.5 (1-17)	n=16 5.0 (1-17)	n=2 6.5 (5-8)
<b>PFS</b> Patients for whom data are available Median longest PFS, months (range)	n=59 4.0 (0-36)	n=55 3.0 (0-26)	n=5 2.0 (0-6)

Of the 83 previously treated patients, 21 had a documented OR to their most recent anticancer therapy

CT, chemotherapy; DOR, duration of response; ICI, immune checkpoint inhibitor; OR, objective response; PFS, progression-free survival; Pt, platinum. **Reference:** Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126.



VISION Cohort

July 2020 cut-off

### **ORR by Baseline Characteristics**

Subgroup	n			ORR by IRC
Overall	152	44.7	(36.7.53.0)	
Sex			()	
Male	79	45.6	(34.3,57.2)	
Female	73	43.8	(32.2,55.9)	
Race				
Caucasian/White	108	42.6	(33.1,52.5)	
Asian	38	50.0	(33.4,66.6)	
ECOG PS				
0	41	56.1	(39.7,71.5)	<b>⊢</b>
1	111	40.5	(31.3, 50.3)	
Smoking history				
Yes	79	49.4	(37.9,60.9)	<b>⊢</b>
No	65	38.5	(26.7,51.4)	
Histological subtype*				
Adenocarcinoma	131	48.1	(39.3, 57.0)	⊢
Squamous	15	20.0	(4.3,48.1)	
Other	6	33.3	(4.3,77.7)	
Age				
<65 years	27	48.1	(28.7,68.1)	<b>⊢−−−−</b> ↓
≥65 years	125	44.0	(35.1, 53.2)	⊢
<75 years	84	48.8	(37.7,60.0)	<b>   ●  </b>
≥75 years	68	39.7	(28.0, 52.3)	
<85 years	115	47.8	(38.4, 57.3)	
≥85 years	37	35.1	(20.2, 52.5)	
Lines of prior therapy for advanced/metastatic disease				
Treatment naive	69	44.9	(32.9, 57.4)	⊢ <b>−</b>
Previously treated	83	44.6	(33.7,55.9)	<b>⊢</b> • • • •
1 line of prior therapy	49	44.9	(30.7, 59.8)	· · · • • · · · · · · · · · · · · · · ·
≥2 lines of prior therapy	34	44.1	(27.2,62.1)	
Prior therapies				
Pt-based CT	74	48.6	(36.9,60.6)	
Also received ICI	29	41.4	(23.5,61.1)	
As combination <sup>+</sup>	10	40.0	(12.2,73.8)	
As single agent in a separate line <sup>+,+</sup>	20	40.0	(19.1,63.9)	
Brain metastases at baseline				
Present (by RECIST v1.1)	23	47.8	(26.8,69.4)	
				0 20 40 60 80 100
				ORR (%) and 95% CI

Overall, 57 of 68 responses (83.8%) were recorded at the first (6 weeks) or second (12 weeks) tumor assessments

\*Of 15 patients with squamous-cell histology: 9 (60.0%) had a smoking history and 6 (40.0%) were never smokers; 7 were from the US (46.7%), 5 from Europe (33.3%), and 3 from Asia (20.0%). 'Other' histologies included sarcomatoid (n=3), adenosquamous (n=2), and NSCLC-NOS (n=1). †One patient received ICI as monotherapy and in combination with Pt-based CT and, as such, is included in both subgroups. ‡Patients could have received 1L Pt-based CT followed by 2L single-agent ICI, or vice versa.

11, first line; 2L, second line; CI, confidence interval; CT, chemotherapy; ECOG PS, Eastern Cooperative Oncology Group performance status; ICI, immune checkpoint inhibitor; IRC, Independent Review Committee; NSCLC-NOS, non-small cell lung cancer - not otherwise specified; ORR, objective response rate; Pt, platinum; RECIST, Response Evaluation Criteria in Solid Tumors. **Reference:** Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126.



VISION Cohort

July 2020 cut-off

### Clinical Outcomes by the Type or Location of METex14 Skipping Alterations Assessed by Liquid Biopsy<sup>1</sup>

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Efficacy according to <i>MET</i> ex14 (n=44) variant type		Point mutation (n=50)		Efficacy according to <i>MET</i> ex14 variant location*	Donor splice (n=64)		Acceptor splice (n=28)		
	IRC	Investigator	IRC	Investigator		IRC	Investigator	IRC	Investigator
ORR (95% CI), %	40.9 (26.3, 56.8)	47.7 (32.5, 63.3)	50.0 (35.5, 64.5)	54.0 (39.3, 68.2)	ORR (95% CI), %	46.9 (34.3, 59.8)	56.2 (43.3, 68.6)	46.4 (27.5,66.1)	42.9 (24.5, 62.8)
DOR, median (95% CI), months	8.4 (5.5, NE)	8.3 (5.3, NE)	9.9 (7.2, NE)	14.0 (9.7, NE)	DOR, median (95% CI), months	9.9 (7.2, NE)	12.5 (7.2, NE)	9.5 (5.5, NE)	8.3 (4.2, NE)
PFS, median (95% CI), months	7.8 (4.1, 9.7)	6.7 (4.2, 9.5)	8.5 (5.7, 11.3)	8.3 (5.1, 11.1)	PFS, median (95% CI), months	8.5 (6.7, 11.0)	8.3 (5.1, 11.0)	6.8 (3.0, 10.9)	5.8 (2.8, 9.7)

These data confirm previous observations from the VISION study, in a larger patient population<sup>2</sup>

\*Whole exon 14 skipping was detected in 2 patients, who are therefore not included in analysis of efficacy according to *MET*ex14 variant location. CI, confidence interval; DOR, duration of response; IRC, Independent Review Committee; *MET*, mesenchymal-epithelial transition; *MET*ex14, *MET* exon 14; NE, not estimable; ORR, objective response rate; PFS, progression-free survival. **References: 1.** Paik PK, et al. Presented at ASCO Annual Meeting, 2021, Abstract 9012; **2.** Paik PK, et al. N Engl J Med. 2020;383(10):931–943.



# Safety and Tolerability Profile of Tepotinib as Studied in 255 Patients

- VISION Cohorts A + C July 2020 cut-off
- Fatal ARs occurred in one patient (0.4%) due to pneumonitis, one patient (0.4%) due to hepatic failure, and one patient (0.4%) due to dyspnea from fluid overload
- Serious ARs occurred in 45% of patients who received tepotinib. Serious ARs in >2% of patients included pleural effusion (7%), pneumonia (5%), edema (3.9%), dyspnea (3.9%), general health deterioration (3.5%), pulmonary embolism (2%), and musculoskeletal pain (2%)

#### Permanent discontinuation due to an AR occurred in 20% of patients who received tepotinib

The most frequent ARs (>1%) leading to permanent discontinuations of tepotinib were edema (5%), pleural effusion (2%), dyspnea (1.6%), general health deterioration (1.6%), and pneumonitis (1.2%)

#### Dosage interruptions due to an AR occurred in 44% of patients who received tepotinib

ARs that required dosage interruption in >2% of patients who received tepotinib included edema (23%), increased blood creatinine (6%), pleural effusion (4.3%), increased ALT (3.1%), and pneumonia (2.4%)

#### Dose reductions due to an AR occurred in 30% of patients who received tepotinib

 ARs that required dose reductions in >2% of patients who received tepotinib included edema (19%), pleural effusion (2.7%), and increased blood creatinine (2.7%)



ALT, alanine aminotransferase; AR, adverse reaction. **Reference:** TEPMETKO<sup>®</sup> (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.

### Safety and Tolerability Profile of Tepotinib as Studied in 255 Patients (continued)



### Clinically relevant ARs in <10% of patients who received tepotinib included ILD/pneumonitis, rash, fever, dizziness, pruritus, and headache

\*Edema includes eye edema, face edema, generalized edema, localized edema, edema, genital edema, peripheral edema, peripheral swelling, periorbital edema, and scrotal edema. <sup>+</sup>Fatigue includes asthenia and fatigue. <sup>‡</sup>Abdominal pain includes abdominal discomfort, abdominal pain, abdominal pain lower, abdominal pain upper, gastrointestinal pain, and hepatic pain. <sup>§</sup>Vomiting includes retching and vomiting. <sup>IM</sup>usculoskeletal pain includes arthralgia, arthritis, back pain, bone pain, musculoskeletal chest pain, musculoskeletal pain, musculoskeletal pain, musculoskeletal pain, musculoskeletal pain, non-cardiac chest pain, pain in extremity, and spinal pain. <sup>¶</sup>Dyspnea includes dyspnea at rest, and dyspnea exertional. #Cough includes cough, productive cough, and upper-airway cough syndrome. <sup>\*\*</sup>Pneumonia includes pneumonia aspiration, and pneumonia bacterial. AR, adverse reaction; ILD, interstitial lung disease; *MET*ex14, *MET* exon 14.

Reference: TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.



VISION Cohorts

July 2020 cut-off

### Safety and Tolerability Profile of Tepotinib as Studied in 255 Patients (continued)



A clinically relevant laboratory abnormality in <20% of patients who received tepotinib was increased lipase in 18% of patients, including 3.7% Grades 3 to 4

\*The denominator used to calculate the rate varied from 207 to 246 based on the number of patients with a baseline value and at least one post-treatment value. ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase. **Reference:** TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021.



VISION Cohorts

July 2020 cut-off

# Most Common (≥5%) TRAEs and TRAEs Leading to Dose Reduction/Interruption



July 2020 cut-off

	Tonotinih EQQ max OD (N-2EE)				
TRAEs, n (%)		$\mathbf{Ig}^* \mathbf{QD} (\mathbf{N} = 255)$			
Any		62(24 3)			
Ally	220 (00.3)	02 (24.3)			
Leading to dose reduction	/1 (27.8)	NR			
Leading to temporary interruption	90 (35.3)	NR			
Leading to permanent interruption	27 (10.6)	NR			
Reported in ≥5% of patients					
Peripheral edema	138 (54.1)	19 (7.5)			
Nausea	51 (20.0)	1 (0.4)			
Diarrhea	50 (19.6)	1 (0.4)			
Blood creatinine increased	45 (17.6)	1 (0.4)			
Hypoalbuminemia	37 (14.5)	6 (2.4)			
ALT increased	22 (8.6)	5 (2.0)			
Decreased appetite	21 (8.2)	1 (0.4)			
Amylase increased	19 (7.5)	5 (2.0)			
Fatigue	18 (7.1)	1 (0.4)			
Alopecia	18 (7.1)	0			
Lipase increased	17 (6.7)	7 (2.7)			
Pleural effusion	16 (6.3)	8 (3.1)			
Edema	16 (6.3)	0			
AST increased	15 (5.9)	3 (1.2)			
Constipation	15 (5.9)	0			
Asthenia	14 (5.5)	1 (0.4)			
Vomiting	14 (5.5)	1 (0.4)			
Upper abdominal pain	14 (5.5)	0			

 Most TRAEs were similar to the known safety profile for tepotinib

> Peripheral edema was the most common TRAE leading to dose reduction (14.1%) or permanent discontinuation (3.5%)

**Peripheral edema** led to **dose interruption** in 16.1% of patients

Peripheral edema can be considered a class effect of MET TKIs and should be proactively managed

\*500 mg tepotinib refers to 500 mg tepotinib hydrochloride hydrate, which is equivalent to 450 mg tepotinib (the active moiety).

ALT, alanine aminotransferase; AST, aspartate aminotransferase; MET, mesenchymal-epithelial transition; NR, not reported; QD, once daily; TKI, tyrosine kinase inhibitor; TRAE, treatment-related adverse event. **Reference:** Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126.



### **AEs of Clinical Interest**

AFe (all equal) of clinical interact $\mathbf{r}$ (0/)	Overall N=255				
ALS (all cause) of clinical interest, n (%)	All grades	Grade 3	Grade 4		
Edema (composite term)	178 (69.8)	24 (9.4)	0		
Peripheral edema	153 (60.0)	20 (7.8)	0		
Edema	18 (7.1)	0	0		
Generalized edema	13 (5.1)	5 (2.0)	0		
Face edema	7 (2.7)	0	0		
Localized edema	6 (2.4)	1 (0.4)	0		
Genital edema	6 (2.4)	3 (1.2)	0		
Periorbital edema	2 (0.8)	0	0		
Scrotal edema	2 (0.8)	0	0		
Peripheral swelling	1 (0.4)	0	0		
Gastrointestinal AEs of clinical interest	-	-	-		
Nausea	68 (26.7)	2 (0.8)	0		
Diarrhea	67 (26.3)	1 (0.4)	0		
Vomiting	33 (12.9)	3 (1.2)	0		
Creatinine increase (composite term)	66 (25.9)	1 (0.4)	0		
Blood creatinine increased	64 (25.1)	1 (0.4)	0		
Hypercreatininemia	2 (0.8)	0	0		

#### **Tepotinib dosing recommendations for AEs of clinical interest:**

VISION Cohorts

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- Grade 2: Maintain dose level. If intolerable, consider withholding tepotinib until resolved, then resume at a reduced dose
- Grade 3: Withhold tepotinib until resolved, then resume at a reduced dose
- Grade 4: Permanently discontinue tepotinib



AE, adverse event. **Reference:** Veillon R, et al. Presented at WCLC, 2020, Abstract 821.
#### **AEs of Clinical Interest: Time to First Onset and Resolution**

VISION Cohorts A +

July 2020 cut-off



AE (patients with ≥1 event)	Edema	Nausea	Diarrhea	Vomiting	Creatinine
	(n=178)	(n=68)	(n=67)	(n=33)	increase (n=66)
Total events	337	87	112	47	96
Events resolved at time of analysis	115	67	102	44	67

Analyses of time to first onset and time to resolution were carried out for AEs of clinical interest, including composite categories comprising preferred terms, and were analyzed irrespective of causal relation to study treatment. Time to first onset was described by median and range for observed AEs, not accounting for competing events. Time to resolution was analyzed using Kaplan–Meier methods in a descriptive manner, not accounting for the fact that one patient could contribute by more than one event of the respective AE.

\*Denotes a censored value.

AE, adverse event.

Reference: Veillon R, et al. Presented at WCLC, 2020, Abstract 821.

#### **Dose Reductions Yield Comparable Efficacy**



Only patients with dose reductions are shown (n=56). 1L, first line;  $\geq$ 2L, second line or greater; AE, adverse event; BOR, best objective response. **Reference:** Le X, et al. Clin Cancer Res. 2022;28(6):1117–1126.



VISION Cohorts A +

July 2020 cut-off

## CONFIRMATORY COHORT C



### **Baseline Characteristics**

• Patients in the confirmatory Cohort C had a median age of 71 years, about half were male, about half had smoking history, and most had adenocarcinoma histology

Baseline characteristics	Cohort C (N=161)	Cohort A (N=152)	
Median age, years (range)		71.0 (42.0-91.0)	73.1 (41.0-94.0)
Sex, %	Male	46.6	52.0
Race, %	White/Asian	54.0/42.2	71.1/25.0
ECOG PS, %	0/1	24.8/74.5	27.0/73.0
Smoking history, %	Yes	43.5	52.0
Histology, %	Adenocarcinoma	75.2	86.2
Brain metastases at baseline, %	Yes	21.1	15.1
Line of therapy, %	Treatment-naive/previously treated	59.0/41.0	45.4/54.6
METex14 skipping detection,* %	T+/L+	74.5/49.1	57.9/65.1

\*Patients could have had *MET*ex14 skipping detected by both liquid and tissue biopsy and, as such, values do not add up to 100%; testing by both methods was not a requirement for study entry. ECOG PS, Eastern Cooperative Oncology Group performance status; L+, *MET*ex14 skipping detected in liquid biopsy; *MET*ex14, *MET* exon 14; T+, *MET*ex14 skipping detected in tissue biopsy. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



VISION Cohort



\*Confirmed responses. <sup>†</sup>Product-limit (Kaplan-Meier) estimates, 95% CI for the median using the Brookmeyer and Crowley method. IRC, Independent Review Committee; CI, confidence interval; DOR, duration of response; mDOR, median duration of response; mo, months; NE, not estimable; ORR, objective response rate. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



**VISION** Cohort

### **Overall Efficacy in Confirmatory Cohort**

.



DOR **Cohort C Cohort A** 1.0 0.9 (N=152) (N=161)Kaplan-Meier 0.8 estimates 0.7 0.6 0.5 **ORR**, % 54.7 46.7 0.4 (95% CI) (46.6, 62.5)(38.6, 55.0)0.3 0.2 0.1 0.0 12 15 18 24 27 30 33 36 39 42 48 0 3 6 9 21 45 51 54 57 60 63 **DCR**, % 80.1 72.4 **Duration of response (months)** Patients at risk (64.5, 79.3)(95% CI) (73.1, 86.0)88 50 5 2 0 Cohort C 78 38 28 18 14 0 0 0 0 0 0 0 0 0 0 0 38 26 15 13 Cohort A 71 70 53 24 18 11 8 8 7 7 5 4 3 1 0 0 0 1 mDOR, PFS 20.8 15.4 months 1.0 (12.6, NE) (9.7, 46.4)Kaplan-Meier estimates 0.9 (95% CI) 0.8 0.7 0.6 0.5 mPFS, months 13.8 10.3 0.4 (95% CI) (10.4, NE) (8.2, 12.7)0.3 0.2 0.1 0.0 21 24 27 30 33 36 39 45 48 51 54 57 3 42 0 6 9 12 15 18 60 63 mOS, months 18.8 19.8 Progression-free survival (months) (15.2, 22.9)(95% CI) (14.4, 25.5)Patients at risk Cohort C 161 127 93 56 38 23 16 11 5 2 0 0 5 0 0 0 Cohort A 152 113 88 59 44 34 27 20 8 18 8 0 17 11 9

CI, confidence interval; DCR, disease control rate; DOR, duration of response; m, median; NE, not estimable; ORR, objective response rate; OS, overall survival; PFS, progression-free survival. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



**VISION** Cohort

### **Efficacy by Line of Therapy**

• Cohort C demonstrated efficacy across therapy lines

	1L	.*	2L+		
	(T+ and	/or L+)	(T+ and/or L+)		
	Cohort C	Cohort A	Cohort C	Cohort A	
	(n=95)	(n=69)	(n=66)	(n=83)	
ORR, %	60.0	50.7	47.0	43.4	
(95% CI)	(49.4, 69.9)	(38.4, 63.0)	(34.6, 59.7)	(32.5, 54.7)	
mDOR, months	NE	46.4	12.6	12.4	
(95% CI)	(13.4, NE)	(7.2, NE)	(5.1, NE)	(8.4, 18.5)	
mPFS, months	15.9	10.3	12.1	10.9	
(95% CI)	(10.4, NE)	(8.0, 15.3)	(6.9, NE)	(8.2, 12.7)	
mOS, months	21.1	19.1	18.8	19.8	
(95% CI)	(12.7, NE)	(9.9, 25.9)	(13.5, NE)	(15.0, 22.3)	

\*1L enrollment began approximately 8 months later than 2L+.

1L, first line; 2L+, second-or-later line; CI, confidence interval; DOR, duration of response; L+, *MET*ex14 skipping detected in liquid biopsy; m, median; *MET*ex14, *MET* exon 14; NE, not estimable; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; T+, *MET*ex14 skipping detected in tissue biopsy.

**Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



VISION Cohort

### **Efficacy by Line of Therapy (DOR)**





\*1L enrollment began approximately 8 months later than 2L+. 1L, first line; 2L+, second-or-later line; DOR, duration of response. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



**VISION** Cohort

### **Efficacy by Line of Therapy (PFS)**

Cohort C demonstrated efficacy across therapy lines



\*1L enrollment began approximately 8 months later than 2L+.
1L, first line; 2L+, second-or-later line; PFS, progression-free survival. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



**VISION** Cohort

## COHORTS A+C: UPDATED EFFICACY AND SAFETY DATA (FEBRUARY 2022)

Due to the single-arm design of the VISION Trial for TEPMETKO, no formal statistical comparisons were conducted, and data, including PFS and OS, were analyzed in a descriptive manner. For these reasons, results from this analysis should be interpreted with caution.



### **Baseline Characteristics**

• VISION comprises a large population of elderly patients with NSCLC harboring *MET*ex14 skipping

Baseline characteristics		Treatment- naive (n=164)	Previously treated (n=149)
Median age, years (range)		74.0 (47–94)	70.8 (41–89)
Sov 0/	Male	50.6	47.7
Sex, %	Female	49.4	52.3
Race*, %	White	68.3	55.7
	Asian	30.5	37.6
	0	27.4	24.2
	1	72.0	75.8
Smoking history <sup>+</sup> , %	Yes	53.7	40.9
	No	45.7	53.0
Histology, adenocarcinoma, %		79.9	81.2
Enrolled in Europe, %		53.7	43.0
<i>MET</i> ex14 skipping detection, %	TBx	67.7	65.1
	LBx	57.9	55.7

\*Race was missing/not collected at the study site for eight patients, three patients were Black/African American, and one patient was recorded as 'other'. †Smoking history was missing in 10 patients. ECOG PS, Eastern Cooperative Oncology Group performance status; *MET*, mesenchymal-epithelial transition factor; *MET*ex14, *MET* exon 14; NSCLC, non-small cell lung cancer. **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



VISION Cohorts



1L, first line; 2L, second line; 2L+, second-or-later line; CI, confidence interval; DOR, duration of response; IRC, Independent Review Committee; m, median; NE, not estimable; ORR, objective response rate; OS, overall survival; PFS, progression-free survival.



Reference: Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.

### **Efficacy by Prior Therapy in Previously Treated Patients (ORR)**

ORR for 2L patients who received CT alone as 1L was 50.0% (95% CI: 36.1, 63.9), IO + CT was 62.5% (35.4, 84.8) and IO was 38.9% (23.1, 56.5)

Tepotinib efficacy			Overall (N=313)			
		n	ORR, % (95% CI)			
Overall		313	-	50.8 (45.1, 56.5)		
Treatment-naive		164	k <mark>¦ ⊕ 1</mark>	56.1 (48.1, 63.8)		
Previously treated: 2L+		149	<b>⊢</b> •	45.0 (36.8, 53.3)		
Prior therapy	IO*	79	F-+	39.2 (28.4, 50.9)		
	IO + CT	22	F	54.5 (32.2, 75.6)		
	СТ	104	<b>⊢</b>	48.1 (38.2, 58.1)		
Previously treated: 2L only		92		45.7 (35.2, 56.4)		
	IO*	36	F	38.9 (23.1, 56.5)		
Prior therapy	IO + CT	16	<b>⊢</b>	62.5 (35.4, 84.8)		
	СТ	54	<b>⊢</b>	50.0 (36.1, 63.9)		
			0 20 40 60 80 100			

\*Patients received IO monotherapy or IO + platinum-based CT.

1L, first line; 2L, second line; 2L+, second-or-later line; CI, confidence interval; CT, chemotherapy; IO, immunotherapy; ORR, objective response rate. **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



VISION Cohorts A +

### **Efficacy by Prior Therapy in Previously Treated Patients (DOR)**

• In patients with prior CT alone, mDOR was 15.4 months; in patients with prior IO + CT, mDOR was 10.1 months



\*Patients received IO monotherapy or IO + platinum-based CT.
 CI, confidence interval; CT, chemotherapy; DOR, duration of response; IO, immunotherapy; m, median; NE, not estimable.
 Reference: Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



VISION Cohorts

Feb 2022 cut-off

Kaplan-Meier estimate

### **Efficacy by Prior Therapy in Previously Treated Patients (PFS)**

• In patients with prior CT alone, mPFS was 11.0 months; in patients with prior IO + CT, mPFS was 11.5 months.



\*Patients received IO monotherapy or IO + platinum-based CT. CI, confidence interval; CT, chemotherapy; IO, immunotherapy; m, median; PFS, progression-free survival. **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



VISION Cohorts

Feb 2022 cut-off

Kaplan-Meier estimate

### **Efficacy by Prior Therapy in Previously Treated Patients (OS)**

• In patients with prior CT alone, mOS was 20.0 months; in patients with prior IO + CT, mOS was 19.3 months



\*Patients received IO monotherapy or IO + platinum-based CT. CI, confidence interval; CT, chemotherapy; IO, immunotherapy; m, median; OS, overall survival. **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



VISION Cohorts

Feb 2022 cut-off

Kaplan-Meier estimate

# **Time on Treatment in Patients With Dose Reductions or Interruptions**



\*Patients indicated with a black circle had no treatment interruptions, patients indicated with solid lines only had no dose reductions, and all other patients had both treatment interruptions and dose reductions. <sup>+</sup>450 mg active moiety. SD, standard deviation.

Reference: Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



VISION Cohorts

### **Most Common TRAEs and AEs of Clinical Interest**

TRAEs, %		Cohorts A+C (N=313*)
Any grade	91.7	
Grade ≥3	34.2	
Leading to dose reduction	33.5	
Leading to treatment interruption	42.5	
Leading to permanent discontinuation		14.7
Reported in $\geq$ 10% of patients, %	All grades	Grades ≥3
Peripheral edema	66.5	10.9
Nausea	23.3	0.6
Hypoalbuminemia	23.0	3.2
Diarrhea	22.4	0.3
Blood creatinine increase	21.7	0.6
ALT increase	13.1	2.2
Decreased appetite	11.2	0.3

 Tepotinib was generally well tolerated, with mostly mildmoderate AEs, and few discontinuations

\*Safety population comprised all patients from VISION Cohorts A and C. AE, adverse event; ALT, alanine transaminase; TRAE, treatment-related adverse event. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



VISION Cohorts A

### **TRAE by Line of Therapy**

TRAEs, n (%)	Treatment- naive (n=164)	Previously treated (n=149)	Prior IO (n=81)
Any grade	155 (94.5)	132 (88.6)	73 (90.1)
Grade ≥3	67 (40.9)	40 (26.8)	22 (27.2)
Leading to dose reduction	64 (39.0)	41 (27.5)	21 (25.9)
Leading to temporary interruption	79 (48.2)	54 (36.2)	31 (38.3)
Leading to permanent discontinuation	25 (15.2)	21 (14.1)	14 (17.3)
All-cause AEs in ≥20% of all pa	atients, n (%)		
Peripheral edema	123 (75.0)	102 (68.5)	57 (70.4)
Nausea	55 (33.5)	41 (27.5)	21 (25.9)
Diarrhea	47 (28.7)	43 (28.9)	21 ( 25.9)
Hypoalbuminemia	57 (34.8)	44 (29.5)	28 (34.6)
Blood creatinine increase	46 (28.0)	45 (30.2)	27 (33.3)
Dyspnea	44 (26.8)	23 (15.4)	14 (17.3)
Decreased appetite	37 (22.6)	27 (18.1)	17 (21.0)

 Overall (N=313), TRAEs occurred in 91.7% of patients, 34.2% had Grade ≥3 TRAEs, and 14.7% discontinued due to TRAEs

- In treatment-naive patients (n=164), Grade ≥3 TRAEs occurred in 40.9% of patients and 15.2% of patients discontinued due to TRAEs
- In previously treated patients (n=149), Grade ≥3 TRAEs occurred in 26.8% of patients and 14.1% of patients discontinued due to TRAEs; in patients with prior IO, Grade ≥3 TRAEs occurred in 27.2% of patients and 17.3% of patients discontinued due to TRAEs
- Peripheral edema was the most common allcause AE, occurring in 75.0% of treatment-naive patients, 68.5% of previously treated patients, and 70.4% of patients with prior IO
- The safety profile of tepotinib was consistent in patients with prior IO



VISION Cohorts

Feb 2022 cut-off

AE, adverse event; IO, immunotherapy; TRAE, treatment-related adverse event.

Reference: Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.

### ACTIVITY IN PATIENTS WITH BRAIN METASTASES



### **Analyses in Patients With Brain Metastases**

 An explorative ad hoc retrospective analysis was conducted using RANO-BM criteria on Cohort A (n=23 patients enrolled with brain metastases)



MRI\* images showing intracranial response to tepotinib in target lesion per RANO-BM criteria

Due to the single-arm design of the VISION Trial, no formal statistical comparisons were conducted; data were analyzed in a descriptive manner. For analysis of intracranial activity, brain imaging had no mandatory schedule and, as such, data for this retrospective ad hoc analysis were incomplete, and confirmation of response was not required. Impact of prior radiotherapy on this analysis should be considered. Results are subject to change based on updated analyses. For these reasons, results from these analyses should be interpreted with caution.

VISION Cohort

July 2020 cut-off





### **Assessment of Intracranial Response to Tepotinib by IRC**

VISION Cohort

July 2020 cut-off



Tepotinib demonstrated intracranial activity in evaluable patients with baseline brain metastases (per RANO-BM) Intracranial disease control was observed in 13/15 patients

Data cut-off: July 1, 2020.

\*Dashes (-) indicate NTLs were not recorded. †Radiotherapy for brain lesions.

BOR, best objective response; CR, complete response; IRC, Independent Review Committee; NTL, non-target lesion; PD, progressive disease; PR, partial response; RANO-BM, Response Assessment in Neuro-Oncology Brain Metastases; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease. **Reference:** Patel JD, et al. ASCO 2021 (Poster 9084).



### **Assessment of Intracranial Response to Tepotinib by IRC**



#### VISION Cohort

July 2020 cut-off

Tepotinib demonstrated intracranial activity in evaluable patients with baseline brain metastases (per RANO-BM) Intracranial disease control was observed in 13/15 patients

Data cut-off: July 1, 2020

\*Dashes (-) indicate NTLs were not recorded. †Radiotherapy for brain lesions. ‡20 Gy in one fraction was reported during the same time period as 30 Gy in 3 fractions. §GammaKnife was also received 31.4 weeks prior to the start of tepotinib treatment.

BOR, best objective response; CR, complete response; IRC, Independent Review Committee; NTL, non-target lesion; PD, progressive disease; PR, partial response; RANO-BM, Response Assessment in Neuro-Oncology Brain Metastases; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease. Reference: Patel JD, et al. ASCO 2021 (Poster 9084).



# **Systemic Response in Patients With Brain Metastases**



Systemic ORR was 52.9% (95% CI: 38.5, 67.1), and median DOR was 9.0 months (95% CI: 5.6, NE) in patients with brain metastases

Systemic objective response (IRC)*		Patients with brain metastases (n=51)
ORR (95% CI), %		52.9 (38.5, 67.1)
	CR	0
	PR	27 (52.9)
BOR, n (%)	SD	12 (23.5)
	PD	7 (13.7)
	NE	5 (9.8)
DCR (95% CI), %		76.5 (62.5, 87.2)

\*T1-weighted, gadolinium-enhanced

BOR, best objective response; CI, confidence interval; CR, complete response; DCR, disease control rate; DOR, duration of response; IRC, Independent Review Committee; MRI, magnetic resonance imaging; NE, not estimable; ORR, objective response rate; PD, progressive disease; PR, partial response; RANO-BM, Response Assessment in Neuro-Oncology Brain Metastases; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease. **Reference:** Thomas M, et al. Presented at DGHO Annual Meeting 2021, Abstract 52.



VISION Cohorts

### **Analysis of Patients With Brain Metastases**



- Tepotinib crosses the blood-brain barrier to a significant extent, leading to concentrations of unbound tepotinib in the brain of 25% compared to plasma ( $Kp_{u,u}=0.25$ ), within a similar range to other CNS-penetrant TKIs
- Across Cohorts A+C, 43 patients with brain metastases were evaluable by RANO-BM (1L, n=23; 2L+, n=20)
- 30 patients (69.8%) received prior brain radiotherapy or surgery
- In patients with target or non-target lesions (n=43), intracranial disease control rate was 88.4% (95% CI: 74.9, 96.1) with intracranial mPFS of 20.9 months (95% CI: 5.7, NE)
- In patients with target lesions (n=15), intracranial ORR was 66.7% (95% CI: 38.4, 88.2) with intracranial mDOR NE (95% CI: 0.9, NE)

1L, first line; 2L+, second-or-later line; CI, confidence interval; CNS, central nervous system; CR, complete response; DOR, duration of response; Kp<sub>uu</sub>, unbound partition coefficient; m, median; NE, not estimable; ORR, overall response rate; PD, progressive disease; PFS, progression-free survival; PR, partial response; RANO-BM, Response Assessment in Neuro-Oncology Brain Metastases; SD, stable disease; TKI, tyrosine kinase inhibitor. **Reference:** Thomas M, et al. Presented at WCLC, 2022, Abstract OA03.05.



VISION Cohorts





### **Summary**



• The most common ARs (≥20%) in patients who received tepotinib were edema, nausea, diarrhea, hypoalbuminemia, blood creatinine increase, dyspnea, and decreased apetite<sup>2</sup>

TEPMETKO<sup>®</sup> (tepotinib) is indicated for the treatment of adult patients with metastatic non-small cell lung cancer (NSCLC) harboring mesenchymalepithelial transition (*MET*) exon 14 skipping alterations<sup>1</sup>

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 This indication is approved under accelerated approval based on ORR and duration of the response. Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trials<sup>1</sup>

1L, first line; 2L, second line; 2L+, second-or-later line; AR, adverse reaction; CI, confidence interval; DOR, duration of response; IRC, Independent Review Committee; m, median; *MET*, mesenchymal-epithelial transition factor; *MET*ex14, *MET* exon 14; NE, not estimable; SCLC, non-small cell lung cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival. **References: 1.** TEPMETKO® (tepotinib) [prescribing information]. EMD Serono, Inc., Rockland, MA; 2021; **2.** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



## BACKUP: UPDATED EFFICACY AND SAFETY DATA FEBRUARY 2021



### **Patient Characteristics**



- **50%** (n=137) treatment naive
- 50% (n=138) previously treated<sup>+</sup>

- 63% of patients were enrolled by tissue (RNA-based) testing
- 58% of patients were enrolled by plasma (ctDNA-based) testing

\*Smoking history was missing in 10 patients.<sup>1</sup> †Had progressed on up to 2 lines of prior systemic therapies.<sup>1</sup> ‡Some patients tested positive using both methodologies.<sup>3</sup> ctDNA, circulating tumor DNA; ECOG PS, Eastern Cooperative Oncology Group performance status; *MET*ex14, *MET* exon 14.

References: 1. Thomas M, et al. Presented at DGHO Annual Meeting 2021, Abstract 52; 2. Garassino M, et al. Presented at ESMO Annual Meeting 2021, Poster 1254P; 3. Felip E, et al. Presented at WCLC 2021, Abstract 170.



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**Efficacy by Previous Treatment Status** 

\*Confirmed responses. +Product-limit (Kaplan-Meier) estimates, 95% CI for the median using the Brookmeyer and Crowley method. BIRC, Blinded Independent Review Committee; mo, months; mDOR, median duration of response; NE, not estimable; ORR, objective response rate. Reference: Thomas M, et al. Presented at DGHO Annual Meeting 2021, Abstract 52.



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### **Overall Activity**

Events

Events



Patients Patients at risk: 135 120 79 49 27 21 12 9 7 7 6 3 1 1 1 1 0 0 at risk: 275 204 139 81 50 33 19 11 10 9 7 6 1 1 1 1 1 0

Overall, ORR was 49.1% (95% CI: 43.0, 55.2), median DOR was 13.8 months (95% CI: 9.9, 19.4), and median PFS was 10.8 months (95% CI: 8.5, 12.4)

BOR, best objective response; CI, confidence interval; CR, complete response; DCR, disease control rate; DOR, duration of response; IRC, Independent Review Committee; NE, not estimable; ORR, objective response rate; PD, progressive disease; PFS, progression-free survival; PR, partial response; SD, stable disease. Reference: Thomas M, et al. Presented at DGHO Annual Meeting 2021, Abstract 52.



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### **Duration of Response/Progression-Free Survival**

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fficacy acco	rdina	Treatment	Previously		Events	mDOR, months (95% CI)		Events	mPFS, months (95% CI)
to IRC		naive (n=137)	treated (n=138)	Treatment-naïve	28.4%	32.7 (9.0, ne)	Treatment-naïve	43.8%	10.4 (8.4, 15.3)
		(11-137)	(1-150)	Previously treated	47.5%	11.1 (8.4, 18.5)	Previously treated	51.4%	11.0 (8.2, 12.4)
ORR (95% CI)	, %	54.0 (45.3, 62.6)	44.2 (35.8, 52.9)	1.0		Treatment-naïve Previously treated	1.0		Treatment-naïve     Previously treate
	CR	0	0				- 8.0 trumte		
	PR	74 (54.0)	61 (44.2)				e.o 6.0		
BOR, n (%)	SD	28 (20.4)	43 (31.2)	W-uelo	L <sub>-1</sub>			····	
				0.2 -			0.2 -	۴	
	PD	16 (11.7)	18 (13.0)	0.0 + + + + + + + + + + + + + + + + + +			0.0 + 1 1 1 1		
	NE	19 (13.9)	16 (11.6)	0 3 6 9 12 1 Patients at risk:	5 18 21 24 27 30 DOR (months	) 33 36 39 42 45 48 51 5)	0 3 6 9 12 15 : Patients at risk:	.8 21 24 27 30 PFS (months)	33 36 39 42 45 48 )
				Treatment- naïve 74 64 40 25 12 1	076443	1 0 0 0 0 0 0	Treatment- naïve 137 102 70 41 23 16	17764	3 0 0 0 0 0
DCR (95% CI)	, %	74.5 (66.3, 81.5)	75.4 (67.3, 82.3)	Previously Treated 61 56 39 24 15 1	1 5 3 3 3 3	2 1 1 1 1 0 0	Previously Treated 138 102 69 40 27 17	8 4 3 3 3	3 1 1 1 1 1

- In treatment-naive patients (n=137), ORR was 54.0% (95% CI: 45.3, 62.6), DOR was 32.7 months (95% CI: 9.0, NE), and PFS was 10.4 months (95% CI: 8.4, 15.3)
- In previously treated patients (n=138), ORR was 44.2% (95% CI: 35.8, 52.9), DOR was 11.1 months (95% CI: 8.4, 18.5), and PFS was 11 months (95% CI: 8.2, 12.4)

BOR, best objective response; CI, confidence interval; CR, complete response; DCR, disease control rate; DOR, duration of response; IRC, Independent Review Committee; NE, not estimable; ORR, objective response rate; PD, progressive disease; PFS, progression-free survival; PR, partial response; SD, stable disease. **Reference:** Thomas M, et al. Presented at DGHO Annual Meeting 2021, Abstract 52.



# TRAEs (Any Grade) Occurring in ≥10% of All Patients

**TRAE**, n (%) Overall (N=291) Peripheral edema 175 (60.1) 66 (22.7) Nausea Diarrhea 62 (21.3) 57 (19.6) Blood creatinine increased Hypoalbuminemia 55 (18.9)

The most common TRAE was peripheral edema (60% any grade, 10% Grade  $\geq$ 3)

EMD

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### **TRAE Summary Across Age Subgroups and Most Common All-Cause AEs by Age**

	Overall	Age subgroup, years					
TRAE, n (%)	(N=291)	<65 (n=64)	≥65-<75 (n=107)	≥75-<85 (n=96)	≥85 (n=24)		
Any grade Grade ≥3	264 (90.7) 86 (29.6)	52 (81.3) 9 (14.1)	105 (98.1) 28 (26.2)	84 (87.5) 39 (40.6)	23 (95.8) 10 (41.7)		
Leading to dose reduction	90 (30.9)	10 (15.6)	36 (33.6)	36 (37.5)	8 (33.3)		
Leading to temporary interruption	114 (39.2)	14 (21.9)	39 (36.4)	46 (47.9)	15 (62.5)		
Leading to permanent discontinuation	41 (14.1)	4 (6.3)	14 (13.1)	17 (17.7)	6 (25.0)		

	Overall	Age subgroup, years				
Most common all-cause AEs, n(%)	(N=291)	<65 (n=64)	≥65-<75 (n=107)	≥75-<85 (n=96)	≥85 (n=24)	
Peripheral edema	191 (65.6)	35 (54.7)	75 (70.1)	61 (63.5)	20 (83.3)	
Nausea	87 (29.9)	16 (25.0)	35 (32.7)	32 (33.3)	5 (20.8)	
Diarrhea	81 (27.8)	17 (26.6)	27 (25.2)	30 (31.3)	7 (29.2)	
Hypoalbuminemia	81 (27.8)	15 (23.4)	27 (25.2)	31 (32.3)	8 (33.3)	
Blood creatinine increase	76 (26.1)	13 (20.3)	30 (28.0)	29 (30.2)	4 (16.7)	
Dyspnea	60 (20.6)	9 (14.1)	21 (19.6)	22 (22.9)	8 (33.3)	
Decreased appetite	48 (16.5)	3 (4.7)	21 (19.6)	22 (22.9)	2 (8.3)	
Constipation	46 (15.8)	9 (14.1)	17 (15.9)	19 (19.8)	1 (4.2)	
Fatigue	45 (15.5)	8 (12.5)	16 (15.0)	20 (20.8)	1 (4.2)	

 Tepotinib was generally well tolerated with low proportion of TRAEs leading to discontinuation

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- Grade ≥3 TRAEs occurred in 29.6% of patients, 30.9% of patients had TRAEs leading to dose reduction, 39.2% temporary interruption, and 14.1% permanent discontinuation
- The most common AE was peripheral edema, occurring in 66% of patients, which was considered treatment related in 60% of patients

EMD

Reference: Garassino M, et al. Presented at ESMO 2021, Poster 1254P.

## BACKUP: RESULTS BY BIOPSY LIQUID VS TISSUE



1.0 -

0.9 L+ (n=81) 42 15.1 (9.5, 22.1) 0.8 T+ (n=86) 28 29.7 (15.3, NE)

**Treatment-naive** 

No. of

events

Time-dependent endpoints showed a trend for improvement in the tissue biopsy population, despite having comparable ORRs in both treatment-naive and previously treated patients

CI, confidence interval; L+, positive detection of METex14 skipping in liquid biopsy sample; MET, mesenchymal epithelial transition factor; METex14, MET exon 14; NE, not estimable; ORR, objective response rate; T+, positive detection of METex14 skipping in tissue biopsy sample. Reference: Felip E, et al. Presented at WCLC 2021, Abstract 170.



Previously

treated

No. of

events



Median OS

(95% CI); months

1.0 -



VISION Cohorts

Median OS

(95% CI); months
## **All-Cause and TRAEs by Biopsy**

- Across Cohorts A and C, 291 patients received at least one dose of tepotinib and were analyzed for safety\*
- Incidences of serious and Grade ≥3 TRAEs were similar across the L+ and T+ populations, but any-cause AEs were
  reported in a larger proportion of L+ patients, suggesting a population with a higher disease burden



\*Patients analyzed for safety include and additional 16 patients with <3 months' follow up in Cohort C that were excluded from efficacy analyses. AEs were defined as events that start within the day of first dose of trial treatment until 30 days after last dose of treatment, or started prior to first dose but worsened during the treatment period, and were graded according to the National Cancer Institute Common Terminology Criteria for Adverse Events v4.03. AE, adverse event; L+, positive detection of *MET*ex14 skipping in liquid biopsy sample; *MET*, mesenchymal epithelial transition factor; *MET*ex14, *MET* exon 14; T+, positive detection of *MET*ex14 skipping in tissue biopsy sample; TRAE, treatment-related adverse event. **Reference:** Felip E, et al. Presented at WCLC 2021, Abstract 170.



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## **Efficacy by Line of Therapy and Biopsy**

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Efficacy (IRC)	L+ (N=178)*			T+ (N=208)*			
	1L (n=95)	2L (n=46)	2L+ (n=83)	1L (n=111)	2L (n=65)	2L+ (n=97)	
ORR, %	57.9	41.3	43.4	56.8	53.8	49.5	
(95% CI)	(47.3, 68.0)	(27.0, 56.8)	(32.5, 54.7)	(47.0, 66.1)	(41.0, 66.3)	(39.2, 59.8)	
mDOR, months	46.4	9.7	12.4	46.4	12.4	10.2	
(95% CI)	(8.3, NE)	(5.6, ne)	(8.4, NE)	(13.4, NE)	(7.0, 20.8)	(8.3, 18.0)	
mPFS, months	9.7	6.9	8.2	15.3	13.7	11.5	
(95% CI)	(8.0, 15.1)	(5.5, 9.5)	(5.7, 11.0)	(11.3, NE)	(8.2, 19.4)	(8.2, 16.8)	
mOS, months	16.3	18.8	18.8	25.9	20.9	20.4	
(95% CI)	(10.4, 22.9)	(10.9, 22.3)	(12.0, 22.3)	(17.5, 36.6)	(17.7, 32.5)	(17.0, 26.8)	

\*Some patients in the VISION trial had a positive detection of *MET*ex14 skipping in both tissue and liquid biopsy samples.

1L, first line; 2L, second line; 2L+, second-or-later line; CI, confidence interval; DOR, duration of response; IRC, Independent Review Committee; L+, positive detection of *MET*ex14 skipping in liquid biopsy sample; m, median; *MET*, mesenchymal epithelial transition factor; *MET*ex14, *MET* exon 14; NE, not estimable; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; T+, positive detection of *MET*ex14 skipping in tissue biopsy sample; **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.



## **Efficacy by Prior Therapy in Previously Treated Patients Confirmed With Tissue Biopsy (ORR)**

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Tepotinib efficacy						T+ patients (N=208)	
					n	ORR, % (95% CI)	
Overall					208		53.4 (46.3, 60.3)
Treatment-naive					111	H	56.8 (47.0, 66.1)
Previously treated: 2L+					97	<b>⊢</b> −● <mark> </mark> _	49.5 (39.2, 59.8)
Prior therapy	IO*				47	<b>⊢</b> •−•	38.3 (24.5, 53.6)
	IO + CT				16	F	56.3 (29.9, 80.2)
	СТ				64	F1	53.1 (40.2, 65.7)
Previously treated: 2L only			65	F1	53.8 (41.0, 66.3)		
Prior therapy	IO*				25	<b>⊢</b> → <u></u> I	44.0 (24.4, 65.1)
	IO + CT				11	F	63.6 (30.8, 89.1)
	СТ				38		60.5 (43.4, 76.0)
					0	20 40 60 80 10	0

\*Patients received IO monotherapy or IO + platinum-based CT. 1L. first line: 2L. second line: 2L+, second-or-later line: CI, confidence interval: CT, chemotherapy; IO,

1L, first line; 2L, second line; 2L+, second-or-later line; CI, confidence interval; CT, chemotherapy; IO, immunotherapy; ORR, objective response rate. **Reference:** Smit EF, et al. Presented at ESMO, 2022, Abstract 985P.

