The MOMENT disease registry of patients with advanced non-small cell lung cancer harboring *MET* exon 14 skipping

Petros Christopoulos[1], Wade Thomas Iams[2], Dina Oksen[3], Seyed Hamidreza Mahmoudpour[3], Tracy Thia[4], Gordon Otto[3], Michael Thomas[1]

[1]Thoraxklinik and National Center for Tumor diseases, Heidelberg University Hospital; Translational Lung Research Center Heidelberg (TLRC-H), The German Center for Lung Research (DZL), Heidelberg, Germany; [2]Division of Hematology/Oncology, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, USA; [3]Merck Healthcare KGaA, Darmstadt, Germany; [4]Merck Pte. Ltd., Singapore, an affiliate of Merck KGaA.

CONCLUSIONS

- **The MOMENT registry will collect comprehensive, high-quality real-world clinical data from patients with advanced NSCLC harboring *MET*ex14 skipping undergoing systemic treatment in a routine clinical setting**
- **Data from the registry will enable future research and studies to inform the optimal care for this rare patient population**

INTRODUCTION

- *MET*ex14 skipping activates oncogenic MET signaling in 3–4% of patients with NSCLC[1–3]
- The low frequency of this alteration has influenced clinical trial design for MET inhibitors, often leading to open-label, single-arm trials
- Tepotinib, a once-daily and highly selective MET TKI, is approved in multiple countries for the treatment of *MET*ex14 skipping NSCLC[4–6]
- In VISION, a Phase II, single-arm study of tepotinib in patients with *MET*ex14 skipping NSCLC, tepotinib demonstrated robust and durable clinical activity with an objective response rate of 50.8% (data cut-off: February 20, 2022; for more information on the VISION study, please see: Thomas M, et al; oral presentation 194 at WCLC 2022)
- However, availability of historical real-world data from patients with *MET*ex14 skipping NSCLC under conventional therapies is limited, because broad MET biomarker testing was only recently introduced in most countries, and because available case data is usually incomplete
- Such real-world data are important as a comparator for the outcome of single-arm studies, like VISION, in the absence of control arms

OBJECTIVE

- The MOMENT registry, a multi-national disease registry including >50 sites across Europe and North America, aims to collect high-quality data prospectively (with longitudinal follow-up) to capture changes in the NSCLC treatment landscape and outcomes in routine clinical practice over time
- These data will include baseline characteristics, treatment patterns and clinical outcomes, in patients with advanced NSCLC harboring *MET*ex14 skipping and treated with any systemic therapy, to address limitations of existing real-world data sources for this rare patient population

MOMENT REGISTRY

MOMENT

Registry for advanced NSCLC harboring *MET*ex14 skipping

Registry design and methods

- MOMENT is a non-interventional disease registry collecting data on patients with advanced NSCLC harboring *MET*ex14 skipping receiving any systemic treatment
- Data elements will be standardized according to EMA recommendations of international terminologies (e.g. MedDRA, ECOG and NCI-CTCAE) (**Figure 1**)
- Data collection began in Q2 2022 and will continue for 5 years (**Table 1**)
- Expected enrollment is approximately 700 patients

Figure 1. Core data elements of the MOMENT registry

- **Biomarker data** – e.g. *MET*ex14 skipping confirmation, PD-L1 status, and co-mutational profile
- **Patient demographics** – e.g. age, sex, smoking history, country
- **Baseline clinical characteristics** – e.g. disease stage, histology, ECOG score, line of therapy
- **Treatment details for each therapy line** – e.g. reason for treatment choice and discontinuation
- **Effectiveness** – e.g. longitudinal radiologic tumor assessment, including physician reports and primary imaging data
- **Safety data** – e.g. predefined safety events

Table 1. Effectiveness and safety assessment

Effectiveness	Safety
• Tumor response per investigator, according to RECIST-like criteria – Complete response – Partial response – Stable disease – Progressive disease – Not evaluable • Imaging data will be collected at baseline and follow-up for central review and verification of response assessment • Mortality data will include date and cause of death	• Data on relevant adverse reactions for each patient that will include – Start/stop date – Grade; 1–5 per NCI-CTCAE V5 – Management, including a need for hospitalization – Dose reductions – Treatment interruptions – Treatment discontinuation – Outcome

Eligibility criteria

- The registry will enroll patients with advanced stage (Stages IIIB/C–IV) NSCLC and confirmed *MET*ex14 skipping who are initiating or already receiving a systemic therapy (**Figure 2**)

Figure 2. Eligibility criteria

Key inclusion criteria

- Advanced stage NSCLC (all histologies)
- Confirmed *MET*ex14 skipping (by TBx and/or LBx)*
- Patients initiating or currently treated with systemic anticancer therapy

Key exclusion criteria

Patients enrolled in a clinical trial†

Systemic therapies in the MOMENT registry population‡

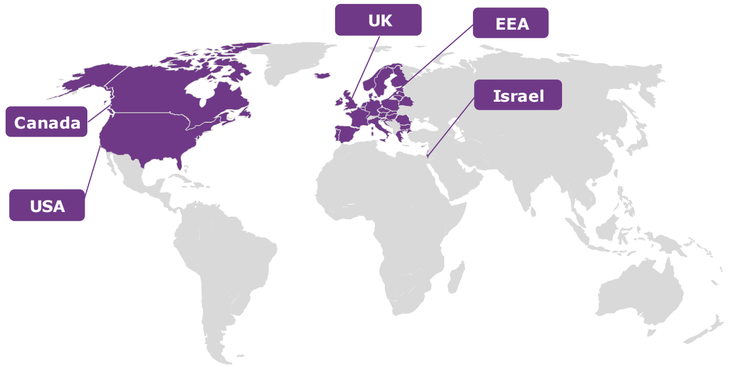
- Immune-checkpoint inhibitors§
- Chemotherapy§
- MET inhibitors§
- Other anticancer therapies

*Prior to the initiation of a site, local *MET*ex14 skipping detection methods will be assessed, and if required, central confirmation using available biopsy samples will be arranged. †Patients with previous participation in any clinical trial can be included, provided they receive at least one subsequent therapy line in a routine clinical setting. If a patient enters a clinical trial after enrollment into the registry, treatment will be blinded for data entry in the eCRF during the time the patient receives any investigational drug. ‡All available anticancer therapies, including those approved, conditionally approved, or available through Early Access Programs. §Given as monotherapy or in combination with other systemic therapies.

Study sites

- The registry will collect data from oncology and radiology sites, both from academic and community oncology settings
- The registry is planned to operate at >50 sites across Europe and North America (**Figure 3**)

Figure 3. MOMENT registry study sites



Study contacts

- The Investigators for this study are Petros Christopoulos (Petros.Christopoulos@med.uni-heidelberg.de), Wade Thomas Iams (wade.t.iams@vumc.org) and Michael Thomas (Michael.Thomas@med.uni-heidelberg.de)
- For further information, please visit https://www.clinicaltrials.gov (ClinicalTrials.gov Identifier: NCT05376891) or contact Merck Healthcare KGaA, Darmstadt, Germany (email: MomentRegistry@merckgroup.com)

Abbreviations: eCRF, electronic case report form; ECOG, Eastern Cooperative Oncology Group; EEA, European Economic Area; EMA, European Medicines Agency; LBx, liquid biopsy; MedDRA, Medical Dictionary for Regulatory Activities; MET, mesenchymal–epithelial transition factor; *MET*ex14, *MET* exon 14; NCI-CTCAE, National Cancer Institute Common Terminology Criteria for Adverse Events; NSCLC, non-small cell lung cancer; PD-L1, programmed death ligand-1; RECIST, Response Evaluation Criteria in Solid Tumors; TBx, tissue biopsy; TKI, tyrosine kinase inhibitor; WCLC, World Conference on Lung Cancer.

References: 1. Reungwetwattana T, et al. *Lung Cancer*. 2017;103:27–37; 2. Rosell R, Karachaliou N. *Lancet*. 2016;387(10026):1354–1356; 3. Salgia R, et al. *Can Treat Rev*. 2020;87:102022; 4. Wu YL, et al. *Cancer Treat Rev*. 2017;61:70–81. 5. Schadt O, Blaukat A. In: Chackalamannil S, et al. *Comprehensive Medicinal Chemistry III*. 3rd ed. Elsevier; 2017:178–203; 6. Bladt F, et al. *Clin Cancer Res*. 2013;19(11):2941–2951.

Acknowledgments: The authors would like to thank patients, all investigators and co-investigators, and the study teams at all participating centers and at Merck Healthcare KGaA, Darmstadt, Germany. The registry is sponsored by Merck Healthcare KGaA, Darmstadt, Germany. Medical writing assistance was provided by Pritha Bhunia of Syneos Health, UK, and funded by Merck Healthcare KGaA, Darmstadt, Germany.

Disclosures. **PC:** Research funding – Amgen, AstraZeneca, Boehringer Ingelheim, Merck Healthcare KGaA, Darmstadt, Germany, Novartis, Roche, Takeda; Advisory board/lecture fees – AstraZeneca, Boehringer Ingelheim, Chugai, Daiichi Sankyo, Gilead, Novartis, Pfizer, Roche, Takeda. **WTI:** Consulting or advisory role – EMD Serono, an affiliate of Merck KGaA, Janssen, Takeda, Bristol-Myers Squibb, Mirati, Chardan Consulting, Curio Science, Defined Health, G1 Therapeutics, Genentech, Jazz Pharmaceuticals, Outcomes Insights. **DO:** Employee of Merck Healthcare KGaA, Darmstadt, Germany. **SHM:** Employee of Merck Healthcare KGaA, Darmstadt, Germany. **TT:** Employee of Merck Pte. Ltd., an affiliate of Merck KGaA, Darmstadt, Germany; Holds stock with Novartis. **MT:** Honoraria: scientific Meetings (self) and traveling support (self) – BMS, MSD, AstraZeneca, Novartis, Roche, Takeda, Lilly, Chugai, Celgene, Boehringer Ingelheim, Pfizer; Honoraria: advisory board (self) – BMS, MSD, AstraZeneca, Novartis, Roche, Takeda, Lilly, Boehringer Ingelheim, Pfizer; Research funding (institution) – BMS, AstraZeneca, Roche, Takeda.