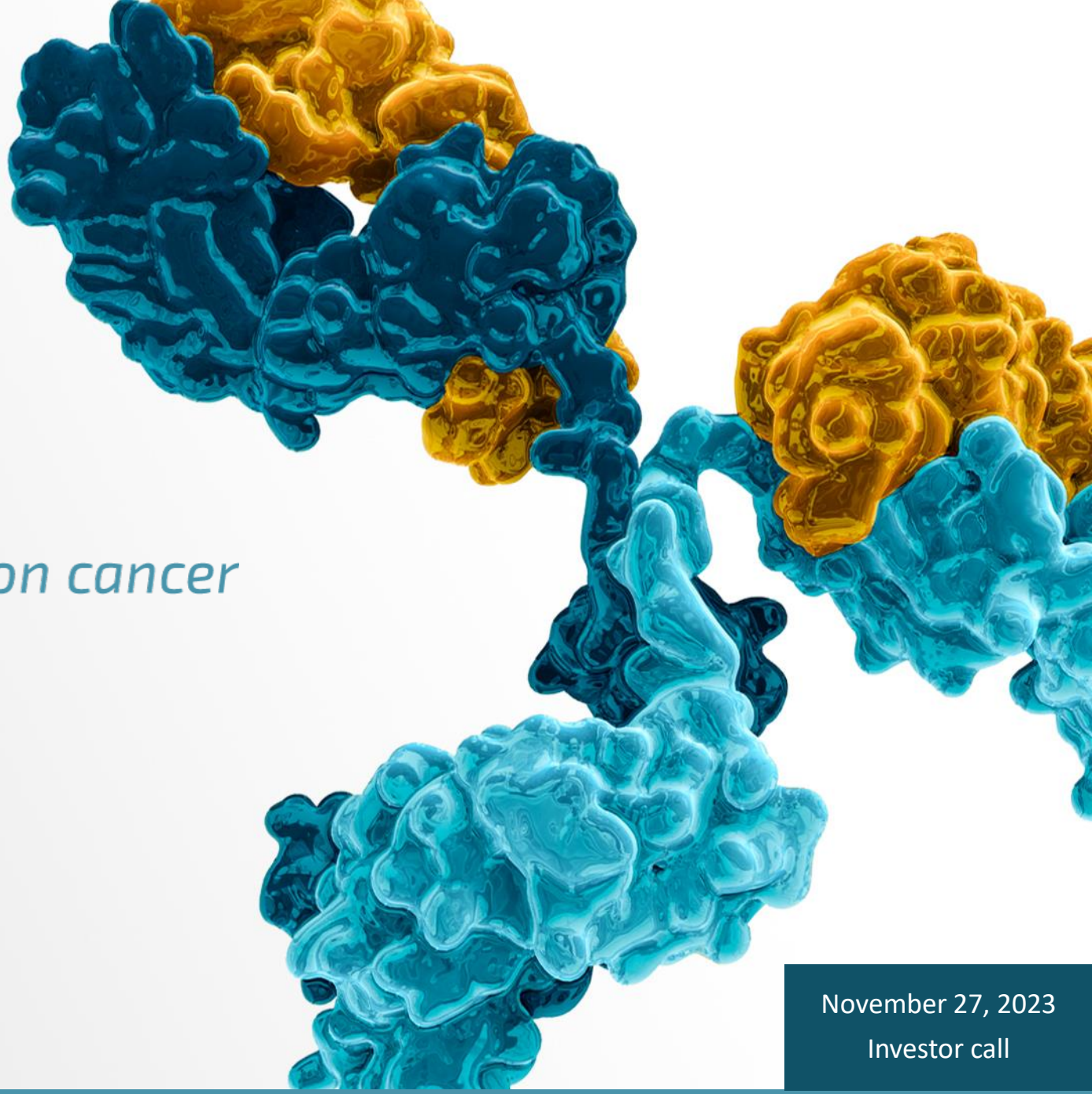
Merus *closing in on cancer*



SPEAKERS

Bill Lundberg, MD, MBA
CHIEF EXECUTIVE OFFICER

Andrew Joe, MD
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November 27, 2023
Investor call

Disclaimer

This presentation (including any oral commentary that accompanies this presentation) contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding the impact our Biclonics® and Triclonics® platforms can have on cancer, our product candidates' potential to treat certain types of tumors, the timing of regulatory filings and the timing and anticipated data read-outs, updates or results from our clinical trials and our collaborations, and anticipated cash runway. These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: we have incurred significant losses, are not currently profitable and may never become profitable; our need for additional funding, which may not be available and which may require us to restrict out operations or require us to relinquish rights to our technologies or antibody candidates; potential delays in regulatory approval and impacts of the COVID-19 pandemic or global instability, which would impact our ability to commercialize our product candidates and affect our ability to generate revenue; the unproven approach to therapeutic intervention of our Biclonics®, and Triclonics® technology; our limited operating history; economic, political, regulatory and other risks involved with international operations; the lengthy and expensive process of clinical drug development, which has an uncertain outcome; the unpredictable nature of our early stage development efforts for marketable drugs; potential adverse public reaction to the use of cancer therapies; potential delays in enrollment of patients, which could affect the receipt of necessary regulatory approvals; failure to obtain marketing approval internationally; failure to compete successfully against other drug companies; potential competition from other drug companies if we fail to obtain orphan drug designation or maintain orphan drug exclusivity for our products; our reliance on third parties to conduct our clinical trials and perform clinical development and the potential for those third parties to not perform satisfactorily; our reliance on third parties to manufacture our product candidates, which may delay, prevent or impair our development and commercialization efforts; protection of our proprietary technology; our patents being found invalid or unenforceable; potential lawsuits for infringement of third-party intellectual property; our ability to attract and retain key personnel; managing our growth could result in difficulties.

These and other important factors discussed under the caption “Risk Factors” in our Annual Report on Form 10-Q for the period ended September 30, 2023 filed on November 2, 2023 with the Securities and Exchange Commission, or SEC, and our other reports filed with the SEC, could cause actual results to differ materially from those indicated by the forward-looking statements made in this presentation. Any such forward-looking statements represent management's estimates as of the date of this presentation. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change.

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On the Call

Bill Lundberg, MD, MBA
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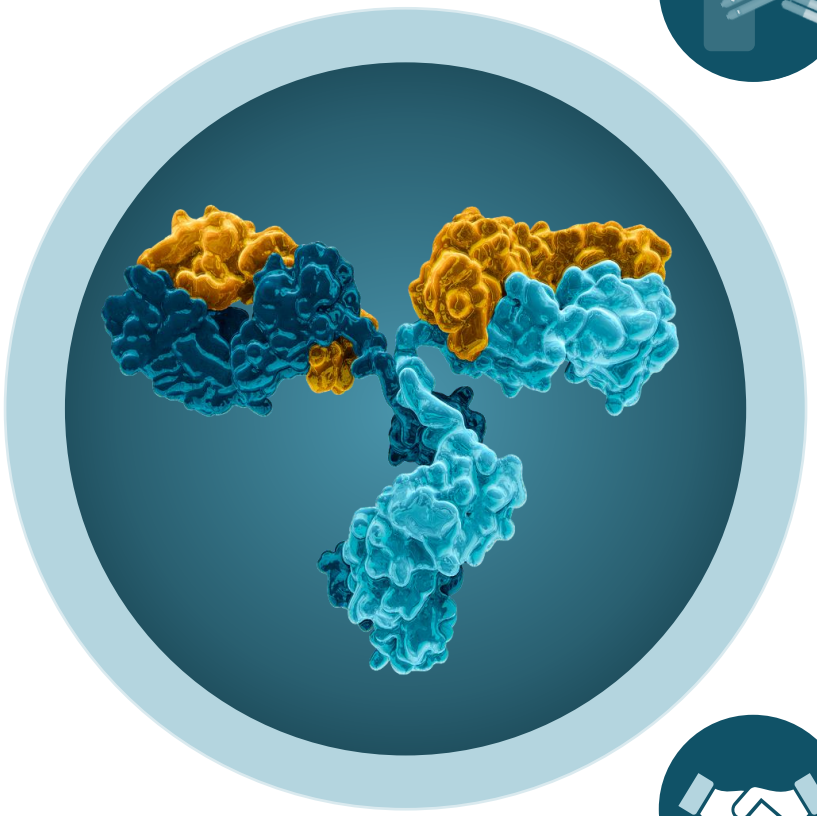
Merus Overview



Oncology-focused Company Developing Multispecific Antibody Therapies

- Bispecific and trispecific cancer therapeutic candidates in the human IgG format
- Common light chain technology permits broad, high throughput discovery of promising Biclonics® and Triclonics® antibodies with potential for meaningful clinical activity in patients

Established Pipeline with Multiple Active Molecules in the Clinic

- Petosemtamab granted fast track designation (FTD) for recurrent or metastatic head and neck squamous cell cancer (HNSCC)
- Zenocutuzumab (Zeno) granted breakthrough therapy designations (BTD) for NRG1 fusion (NRG1+) non-small cell lung cancer (NSCLC) and pancreatic cancer (PDAC) [2]
- MCLA-129[3] highly active in an evolving competitive landscape of EGFRm NSCLC development

Strong Cash Position into 2027[1]

- Sufficient data expected in 1H24 for Zeno in expected to support NRG1+ NSCLC and PDAC to support Biologics License Application (BLA) submissions
- Phase 3 trial of petosemtamab monotherapy in 2L+ HNSCC planned to start in mid-2024

Strategic Collaborations to Unlock Platform Value

- Multiple strategic collaborations and license agreements, leading to multiple Biclonics® candidates in clinical development for potential future milestone and royalty opportunities

[1] See November 2, 2023 10-Q noting our belief that our cash, cash equivalents and marketable securities, will fund our operations into 2027
[2] For further details of FTD and BTD designations see prior releases https://ir.merus.nl/news-releases
[3] See ESMO Asia 2023 abstract data

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Agenda

1. MCLA-129 Abstracts at ESMO Asia
2. NSCLC Landscape & MCLA-129 Development Strategy
3. Q&A

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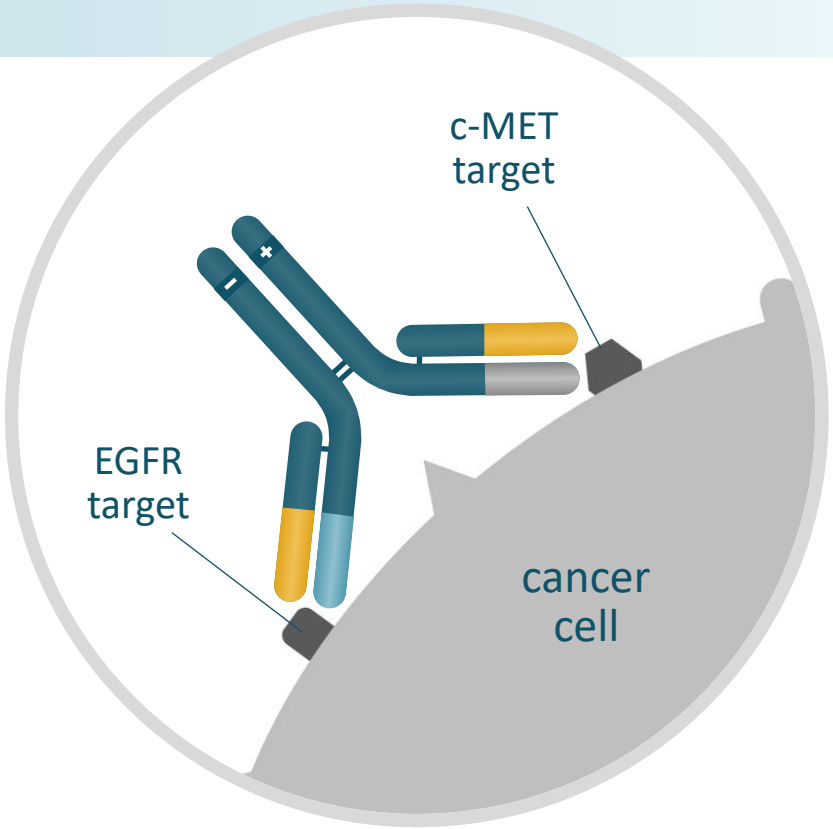
Designed to target lung cancer and other solid tumors expressing EGFR and c-MET

MCLA-129

EGFR x c-MET Bispecific

- Targets both EGFR and c-MET on cancer cells
- Modifications to enhance ADCC, observed preclinically to have greater potency than amivantamab in certain high-affinity (FcγRIII 158V) or low-affinity (Fcγ RIII 158F) variant effector cells[1]
- Significant potential opportunity in lung cancer and other solid tumors
- Phase 1/2 trial ongoing; 2H22 clinical update provided at the EORTC-NCI-AACR 2022
- Clinical data update from three expansion cohorts published at ESMO Asia 2023



[1] *de Gorter, et al. AACR 2023*

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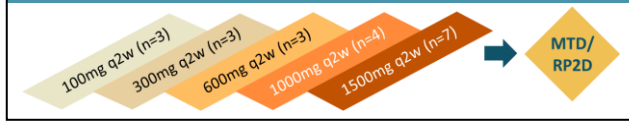
Dose Escalation Phase of MCLA-129 in NSCLC and Other Solid Tumors*

Study Design

DOSE ESCALATION

Metastatic or locally advanced

GE/GEJ, NSCLC *w/ EGFR mutation and/or c-MET mutation or amplification;* HNSCC or ESCC without biomarker selection



Expansion Cohorts Ongoing

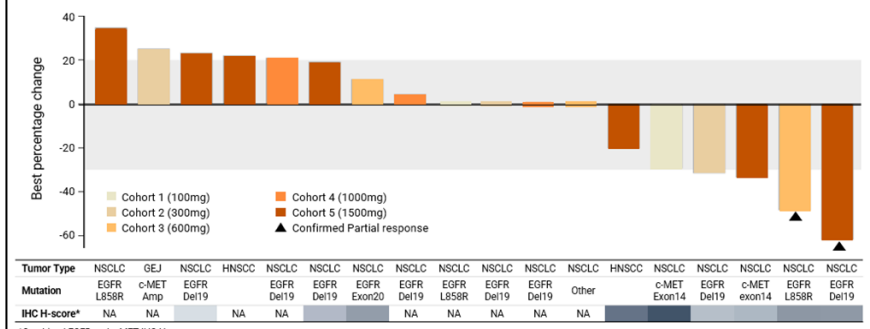
Cohort A: NSCLC with EGFR exon20 insertion
Cohort B: NSCLC with c-MET exon14 skipping
Cohort C: HNSCC
Cohort D + 3rd gen EGFR TKI: NSCLC 1L (EGFR sensitizing mutations)
Cohort E + 3rd gen EGRF TKI: NSCLC post-Osimertinib

Safety

	Irrespective of causality		Suspected related	
Preferred term	All grades n(%)	Grade 3-4 n(%)	All grades n(%)	Grade 3-4 n(%)
-- Any event	**19 (95%)**	**9 (45%)**	**19 (95%)**	**4 (20%)**
Infusion related reaction**	18 (90%)	1 (5%)	18 (90%)	1 (5%)
Dyspnea	11 (55%)	1 (5%)	9 (45%)	1 (5%)
Flushing	9 (45%)	-	9 (45%)	-
Nausea	9 (45%)	-	8 (40%)	-
Fatigue	6 (30%)	1 (5%)	3 (15%)	-
Back pain	5 (25%)	-	2 (10%)	-
Chills	5 (25%)	-	5 (25%)	-
Myalgia	5 (25%)	-	4 (20%)	-
Vomiting	5 (25%)	-	5 (25%)	-
Cough	4 (20%)	-	3 (15%)	-
Abdominal pain	3 (15%)	-	1 (5%)	-
Arthralgia	3 (15%)	-	2 (10%)	-
Dermatitis acneiform	3 (15%)	-	3 (15%)	-
Lipase increased	(15%)	-	2 (10%)	-
Oedema peripheral	3 (15%)	-	-	-
Pruritus	3 (15%)	1 (5%)	3 (15%)	1 (5%)

- No dose limiting toxicities (DLTs) reported
- The majority of IRR events occurred during the first infusion

Efficacy



Dose level (mg)	Tumor type	Mutation	Best response (Δ% target lesions)	Cycle received	Prior treatments ***
1500	HNSCC		SD (-20%)	2	PB Cet N
100	NSCLC	c-MET exon 14	SD (-29.2%)	5	PB Cr Cap P
300	NSCLC	EGFR 19del	PD (-31.4%)	11 (+)	PB O P
1500	NSCLC	c-MET exon14	uPR (-33.3%)	3 (+)	PB Tep P
600	NSCLC	EGFR L858R	PR (-48.2%)	8 (+)	PB O P
1500	NSCLC	EGFR 19del	PR (-59.6%)	5 (+)	PB O N

** Ou et al., EORTC-NCI-AACR 2022, data cutoff August 15, 2022; Safety: most frequent (>)10% adverse events among n=20 pts as of Aug 15, 2022 data cutoff date;*
*** Grouped term covering all AEs occurring within 24 hours of the infusion considered by the investigator as an IRR;*
**** PB: platinum based chemotherapy; O: osimertinib; N: nivolumab; P: pembrolizumab; Cr: crizotinib; Cap: capmatinib; Cet: cetuximab; Tep: tepotinib; (+) patient ongoing; PR partial response; uPR unconfirmed partial response; SD stable disease; PD progression disease*

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ESMO Asia Congress 2023 Abstract interim data in EGFRm NSCLC

Combination of MCLA-129 plus Osimertinib in EGFRm NSCLC

Enrollment and efficacy population as of a May 10, 2023 data cutoff date[1]

- 48 patients with EGFRm (L858R or Ex19) NSCLC were treated with MCLA-129 and osimertinib
- **1L:** n=14, 10 evaluable, median age 56 years
- **2L+:** n=34, 22 evaluable, median age 61 years
  - Prior osimertinib as 1L/2L in all; 71% as the most recent therapy;
  - 24% received prior chemotherapy

Clinical activity[2] observed in 48 patients

- **1L EGFRm NSCLC:**
  - 2 confirmed and 6 unconfirmed partial responses (PRs)[2] (8/10, 80%; 95% CI 44-98)[2] by RECIST v. 1.1 investigator assessment; all ongoing at data cutoff
  - 90% (95% CI 56-100) disease control rate (DCR)
  - 10 weeks median exposure duration with 93% of patients ongoing
- **2L+ EGFRm NSCLC:**
  - 6 confirmed and 5 unconfirmed PRs[2] (11/22, 50%; 95% CI 28-72) by RECIST v. 1.1 investigator assessment; 9 of 11 responses ongoing, including 4 of the unconfirmed PRs
  - 82% (95% CI 60-95) DCR
  - 10 weeks median exposure duration with 68% of patients ongoing

Safety profile (n=48)[1]

- IRRs (composite term), regardless of causality in 85% (6% ≥ grade(G) 3)
- Skin toxicity (composite term) in 75% (4% G3)
- Venous thromboembolic (VTE) events in 15%; 4% treatment related
- Interstitial lung disease (ILD)
  - Treatment related ILD/pneumonitis in five patients (10%), two were G2, two were G3, and one was G5 and; one progressed to G5 after data cutoff date

[1]All data set forth is as of May 10, 2023 data cutoff, unless otherwise noted
[2]RECIST v1.1 per investigator assessment

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ESMO Asia Congress 2023 Abstract interim data in HNSCC[1]

MCLA-129 monotherapy demonstrated modest antitumor activity

Enrollment and efficacy population as of a May 10, 2023 data cutoff date

- 18 patients with previously treated HNSCC were enrolled
- Median age was 62.5 years and 83% were male
- Median of two prior lines of therapy, including anti-PD-(L)1 (78%), platinum-based chemotherapy (89%), and 28% received cetuximab in the recurrent/metastatic (RM) setting
- 12 patients were evaluable for response

Clinical Activity[2] observed in 12 patients

- 17% unconfirmed partial response by RECIST v1.1 per investigator assessment; 1 of 2 responses was ongoing at the data cutoff date
- 67% (95% CI 35-90%) disease control rate (DCR)
- 8 weeks median exposure duration with 50% of patients ongoing at the data cutoff

Safety profile (n=18)

- IRRs (composite term), regardless of causality in 72% (28% ≥ G3), all on cycle 1 day 1, that led to treatment discontinuation in 2 patients
- Skin toxicity in 61% (11% G3)
- No cases of ILD or VTE

[1]*All data set forth is as of May 10, 2023 data cutoff, unless otherwise noted*
[2]*RECIST v1.1 per investigator assessment*

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Next Steps

MCLA-129 is an active EGFR x c-MET bispecific

MCLA-129 in combination with osimertinib is active in EGFRm NSCLC

- Early efficacy of MCLA-129 in combination with osimertinib is comparable to recently published results from another EGFR x c-MET bispecific
- Treatment landscape in 1L and 2L+ EGFRm NSCLC continues to evolve

MCLA-129 is active in HNSCC

- Clinical activity of MCLA-129 is on par with cetuximab or other EFGR inhibitors
  - 17% ORR unconfirmed PRs; 1 of 2 responses was ongoing
- MCLA-129 activity in HNSCC is inferior to Petosemtamab, which demonstrated 37% ORR[1] in 2L+ HNSCC
- Insufficient to warrant further development of MCLA-129 in HNSCC

Next steps planned for MCLA-129

- Continue enrollment in MET ex14 NSCLC
- Initiate cohort of MCLA-129 in combination with chemotherapy in 2L+ EGFRm NSCLC starting in 1Q24
- Ongoing follow up and biomarker evaluation in patients treated with MCLA-129 and osimertinib combination
- Focused investment

Petosemtamab has the potential to become the next standard of care in HNSCC

[1] *Petosemtamab interim clinical data published in Cohen, et al., AACR 2023*

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Merus Potential Milestones 2023-2024

PETOSEMTAMAB in head and neck & other cancers (MCLA-158)	☑ **Update on path to potential registration** in HNSCC ☐ **Initiate phase 3** monotherapy trial in 2L+ HNSCC (planned to start mid-2024) ☐ **Evaluate the safety and tolerability** of petosemtamab with Keytruda® as front-line therapy for advanced HNSCC expressing PD-L1 (CPS ≥ 1) (clinical update planned 1H24) ☐ **Clinical data** update on monotherapy in 2L+ HNSCC, including dose evaluation cohort (planned 2024)
ZENOCUTUZUMAB in NRG1+ cancer & CRPC (Zeno, MCLA-128)	☑ **Granted BTD for NRG1+ NSCLC & PDAC** ☑ **Update clinical data** in NRG1+ NSCLC & PDAC (ESMO 2023) ☑ **Initial clinical data** in CRPC in combination with an ADT ☐ **Enrollment and clinical follow up** expected in 1H24 to support potential BLA submissions in NRG1+ NSCLC & PDAC
MCLA-129 in NSCLC & other cancers	☑ **Clinical data** update from three expansion cohorts (published at ESMO Asia 2023) ☐ **Initiate cohort of** MCLA-129 in combination with chemotherapy in 2L+ EGFRm NSCLC (planned 1Q24) ☑ **Update clinical development strategy**

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