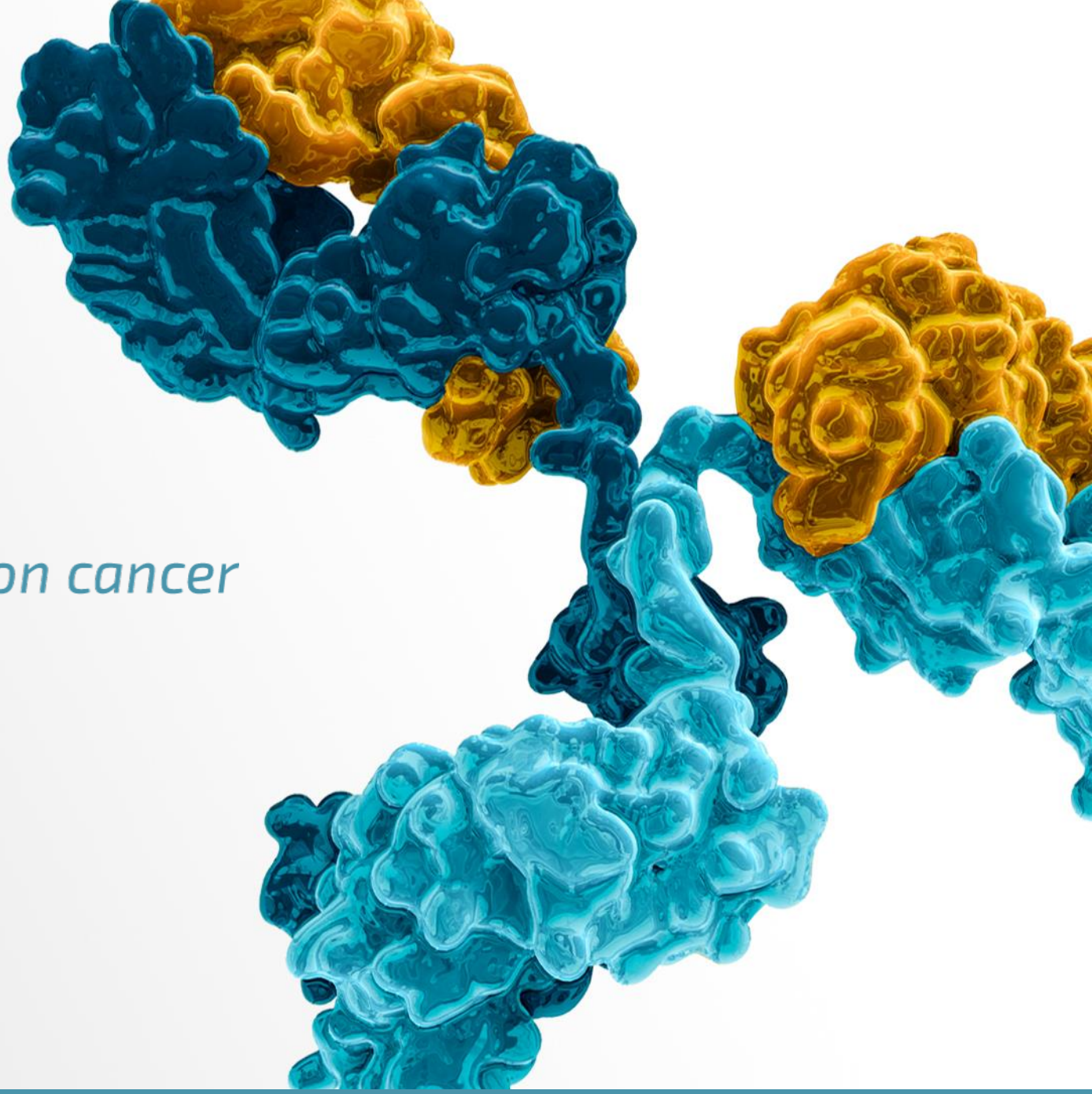
Merus closing in on cancer

# Corporate Presentation

May 2024



# 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 intellectual property, 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 market volatility, and global conflict in Russia, Ukraine and the Middle East, 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 stage of 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 March 31, 2024 filed on May 8, 2024 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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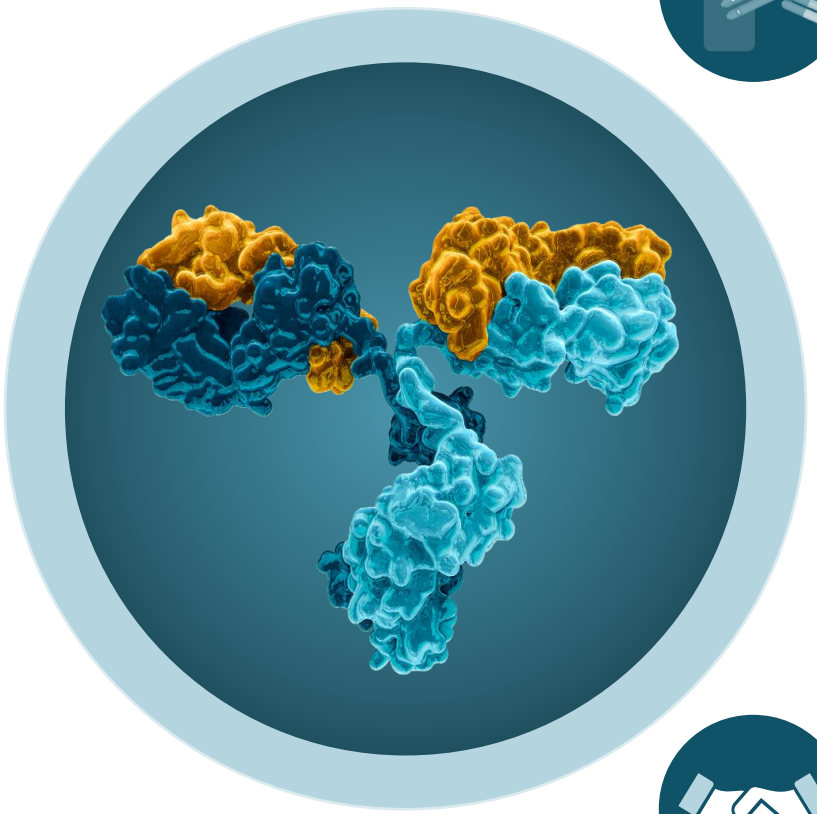
# Merus Overview



## 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

- The FDA has accepted a Biologics License Application (BLA) for priority review for zenocutuzumab (Zeno) in NRG1 fusion (NRG1+) non-small cell lung cancer (NSCLC) and pancreatic cancer (PDAC)
- Petosemtamab granted breakthrough therapy designation (BTD) and fast track designation (FTD) for previously treated recurrent or metastatic head and neck squamous cell cancer (HNSCC)[2]
- MCLA-129[3] highly active in an evolving competitive landscape of EGFRm NSCLC development

## Strong Cash Position into 2027[1]

- Well capitalized into multiple planned clinical milestones
- Phase 3 trial of petosemtamab monotherapy in 2L+ HNSCC planned to start in mid-2024

## Strategic Collaborations to Unlock Value from our Multiclonics® Platforms

- Multiple strategic collaborations and license agreements, researching Biclonics® and Triclonics® candidates for clinical development for potential future milestone and royalty opportunities

*[1] See May 8, 2024 10-Q noting our belief that our cash, cash equivalents and marketable securities, will fund our operations into 2027*
*[2] For further details of the BLA acceptance, BTD and FTD see prior releases https://ir.merus.nl/news-releases*
*[3] Cappuzzo et al, ESMO Asia 2023*



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# Merus Potential Milestones 2024

| | |
|---|---|
| **PETOSEMTAMAB**<br>in head and neck & other cancers | ☐ **Initiate phase 3** monotherapy trial in 2L+ HNSCC (planned to start mid-2024)<br>☐ **Evaluate the safety and tolerability** of petosemtamab with pembrolizumab as first-line therapy for advanced HNSCC expressing PD-L1 (CPS ≥ 1) (clinical update planned 2024 ASCO®)<br>☐ **Clinical data** update on monotherapy in 2L+ HNSCC, including updated AACR 2023 dataset and new dose evaluation cohorts (planned 2H24)<br>☐ **Initiate cohort** of petosemtamab with standard chemotherapy in 2L colorectal cancer (planned 2024) |
| **ZENOCUTUZUMAB**<br>in NRG1+ cancer & CRPC | ☑ **BLA** accepted for priority review for NRG1+ NSCLC & PDAC |
| **MCLA-129**<br>in NSCLC & other cancers | ☐ **Initiate cohort** of MCLA-129 in combination with chemotherapy in 2L+ EGFRm NSCLC (planned 2024) |



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# Merus Clinical Pipeline

| PROGRAM | BISPECIFIC TARGETS | INDICATION(S) | PRECLINICAL | PHASE 1 | PHASE 1/2 | STATUS |
|---|---|---|---|---|---|---|
| **Petosemtamab (MCLA-158)** | EGFR x LGR5 | 2L+ HNSCC | | | | • Monotherapy phase 3 trial planned to start mid-2024<br>• Clinical update on 2L+ planned 2H24 (AACR 2023 follow-up and dose evaluation cohorts) |
| | | 1L HNSCC with a PD1 inhibitor | | | | • Clinical update on 1L combination planned 2024 ASCO® |
| | | 2L CRC with standard chemotherapy | | | | • 2L CRC planned to start 2024 |
| **Zenocutuzumab (Zeno) (MCLA-128)** | HER2 x HER3 | NRG1+ cancer | | | | • BLA accepted for priority review for NRG1+ NSCLC & PDAC |
| | | Other cancers | | | | |
| **MCLA-129** | EGFR x c-MET | Solid tumors | | | | • Clinical update on MET exon14 skipping NSCLC planned 2024 ASCO®<br>• Combination with chemotherapy planned to start 2024 |
| | | 2L+ EGFRm NSCLC with chemotherapy | | | | |
| **MCLA-145** | CD137 x PD-L1 | Solid tumors with a PD1 inhibitor | | | | • Clinical update planned 2024 ASCO® |



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# Strategic Relationships

## *Expanding the pipeline potential through global collaborations*

| PROGRAM | BISPECIFIC TARGETS | INDICATION(S) | PRECLINICAL | PHASE 1 | PHASE 1/2 |
|---|---|---|---|---|---|
| **MCLA-129**[2] | EGFR x c-MET | Solid tumors | (China) | | |
| | | NSCLC with a 3rd gen EGFR TKI | (China) | | |
| **ONO-4685**[3] | PD-1 x CD3 | Relapsed/Refractory T Cell Lymphoma; Psoriasis | | | |
| **INCA32459**[3,4] | LAG3 x PD-1 | Advanced malignancies | | | |
| **INCA33890**[3,4] | TGFBr2 x PD-1 | Select advanced solid tumors | | | |

[1] *Collaboration on Merus' Triclonics® platform to research up to three T-cell engaging multi-specific antibody products in oncology*
[2] *If commercialized, Merus to receive potential milestones and royalties, if approved based on Betta's development in China; Merus retains full rest of world rights ex-China*
[3] *If commercialized, Merus to receive potential milestones and royalties, if approved*
[4] *Incyte February 13, 2024 10K*

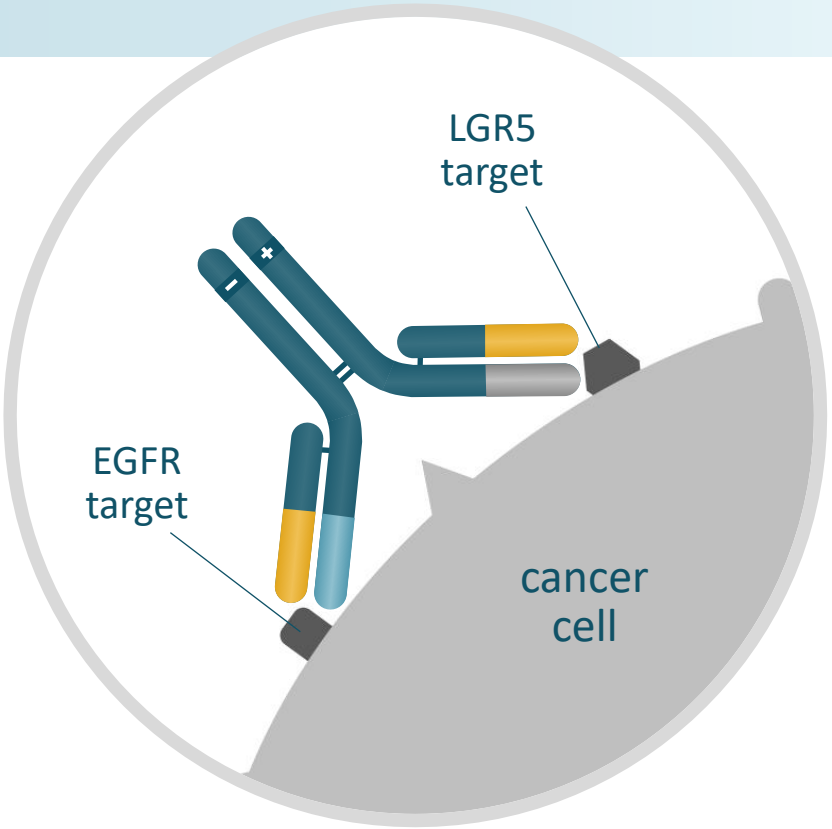
# *Potential first and best in class EGFR x LGR5 Biclonics® designed to potently block dysregulated signaling and growth in solid tumors[1]*

# Petosemtamab

MCLA-158

EGFR x LGR5 bispecific

- Targets EGFR and LGR5, a cancer-stem cell antigen; modifications to enhance antibody-dependent cell-mediated cytotoxicity (ADCC)
- Granted BTD and FTD for recurrent or metastatic HNSCC[3]
- AACR 2023[2]: Meaningful single agent clinical activity observed in previously treated (2L+) HNSCC; clinical data update planned for 2H24
- Dose comparison of petosemtamab monotherapy 1100 vs 1500 mg in 2L+ HNSCC ongoing; initial clinical data planned 2H24
- Phase 3 trial in 2L+ HNSCC planned to start mid-2024
- Cohort ongoing in 1L HNSCC in combination with pembrolizumab; initial clinical data planned 2024 ASCO®
- Cohort in 2L CRC planned to start in 2024






*[1] Herpers et al, Nature Cancer, 3, 418–36, 2022 [2] Cohen, et al. AACR 2023 [3] For details and complete description of BTD and FTD see prior releases https://ir.merus.nl/news-releases*

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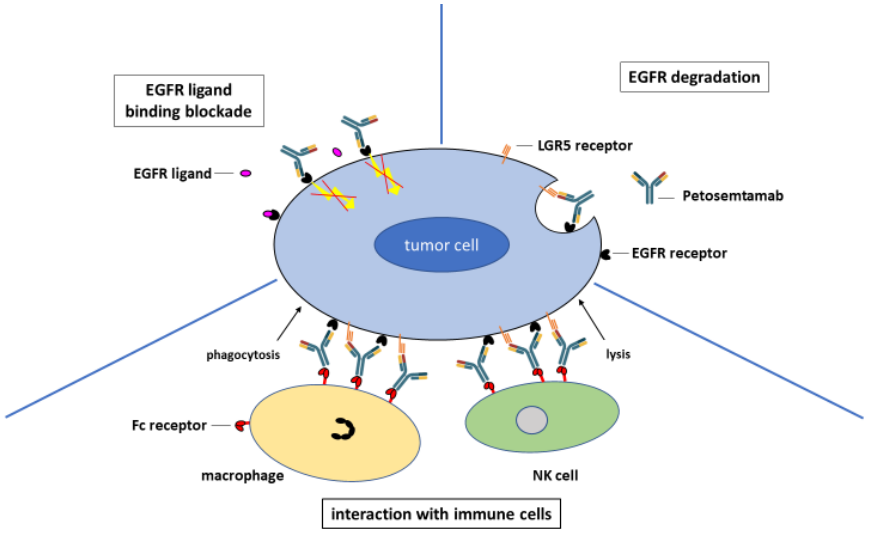
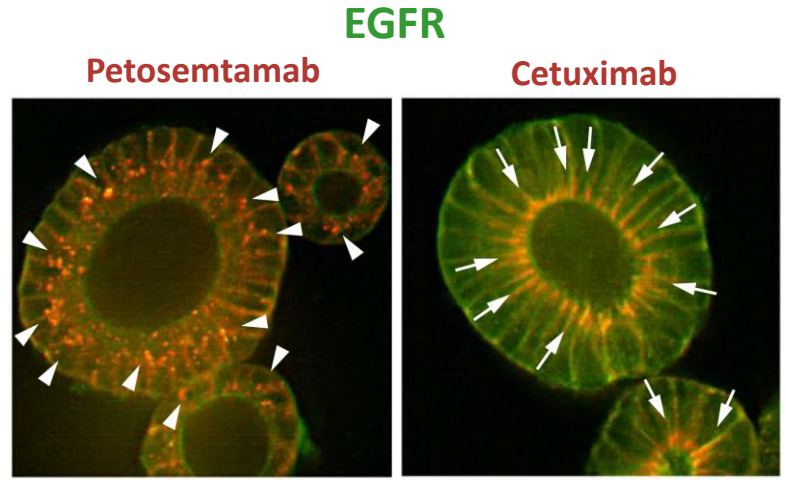
# Petosemtamab — Unique Mechanism of Action

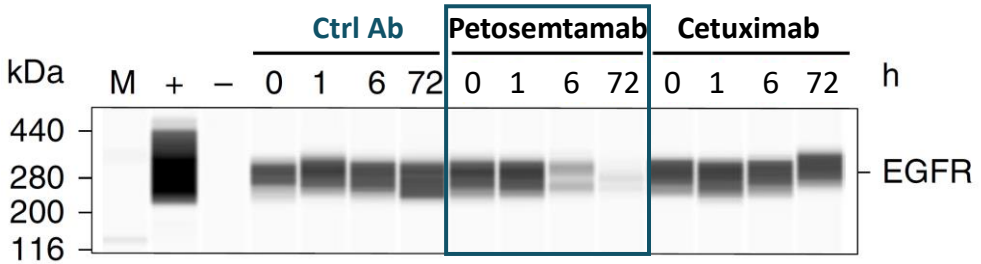
## *Mechanism of Action[1]*




- Blocks EGFR ligand and inhibits signaling
- Degrades EGFR (via LGR5/E3 ligase)
- Facilitates interaction with immune cells (ADCC and antibody-dependent cellular phagocytosis enhanced antibody)[1]

## *Induces EGFR Internalization and Degradation[1]*






[1] Herpers et al, Nature Cancer, 3, 418–36, 2022

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# Phase 1/2 Trial

## *Cohort Expansion in HNSCC[1]*

**Dose escalation is completed:** No DLTs were reported; the dose of 1500 Cohort Expansion in HNSCC mg Q2W was selected based on safety, PK, and predicted receptor occupancy.[2]

### Key HNSCC Inclusion Criteria

- Progression on or intolerant to anti-PD-(L)1 and platinum-based therapy in incurable recurrent or metastatic disease
- ECOG PS 0-1
- Measurable disease

### Treatment Plan

- Petosemtamab 1500 mg IV, Q2W, 28-day cycle
- Until PD or toxicity
- Tumor assessment Q8W

### Follow-Up

Survival follow-up for up to 18 months

### Objectives and Analysis Population

- **Primary objective:** ORR using RECIST 1.1 per investigator
- **Secondary objectives:** ORR (per central review), DOR and PFS (per investigator and central review), OS, safety, PK, immunogenicity, and biomarkers
- **Efficacy evaluable population:** patients with ≥2 treatment cycles (≥8 weeks) with ≥1 post-baseline tumor assessment or discontinued early due to disease progression or death

### Enrollment and Interim Analysis

**Data cutoff date**

01-Feb-2023

**Enrollment**

49 patients

**Efficacy evaluable population**

43 patients

6 patients excluded per protocol:

- 5 patients withdrew due to IRR on Day 1
- 1 patient with excl. criterion deviation



[1] Cohen, et al., AACR 2023

[2] Argiles et al. J Clin Oncol. 39(3_suppl):Abst 62, 2021

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# HNSCC Patient Population
## Demographics and Disease Features



| Demographics and Disease Features | N=49 |
|---|---|
| **Age** (years), median (range) | 63 (31 - 77) |
| **Male / female** | 38 (78%) / 11 (22%) |
| **ECOG PS 0 / 1** | 14 (29%) / 35 (71%) |
| **Squamous cell carcinoma histology** | 48 (98%)[1] |
| **Tumor location** | |
| ▪ Oropharynx | 17 (35%) |
| ▪ Oral cavity | 15 (31%) |
| ▪ Larynx | 8 (16%) |
| ▪ Hypopharynx | 4 (8%) |
| ▪ Other | 5 (10%)[2] |
| **Measurable disease** | 48 (98%) |

[1] *One patient had p16-negative epidermoid cancer with unknown origin*
[2] *Other: nasal cavity and paranasal sinuses, nasopharynx, supraglottis, vocal cord, unknown origin*

| Tumor Biomarkers | N=49 |
|---|---|
| **EGFR** | |
| ▪ H-score[3], median (range) (n=35) | 170 (0 - 300) |
| **PD-L1** | |
| ▪ Positive (CPS[3] ≥1) / negative | 20 (41%) / 9 (18%) |
| ▪ Unknown[4] | 20 (41%) |
| **p16 status: oropharynx** | **N=17** |
| ▪ p16 positive / negative[3] | 6 (35%) / 3 (18%) |
| ▪ Unknown[4] | 8 (47%) |

[3] *By immunohistochemistry*
[4] *Unknown: not yet available or analyzed, not collected, or inadequate quality*

# HNSCC Patient Population

## Prior Therapy, Disposition, and Exposure

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

| Prior Cancer Therapy | N=49 |
|---|---|
| **No. lines prior systemic therapy**, median (range) | 2 (1 - 4) |
| ▪ PD-(L)1 inhibitor | 47 (96%) |
| ▪ Chemotherapy | 46 (94%) |
| ▪ Platinum-based therapy | 45 (92%) |
| ▪ Cetuximab | 2 (4%) |
| **Last therapy prior to petosemtamab** | |
| ▪ Immunotherapy | 27 (55%) |
| ▪ Immunotherapy + chemotherapy | 14 (29%) |
| ▪ Chemotherapy | 7 (14%) |
| ▪ Investigational | 1 (2%) |

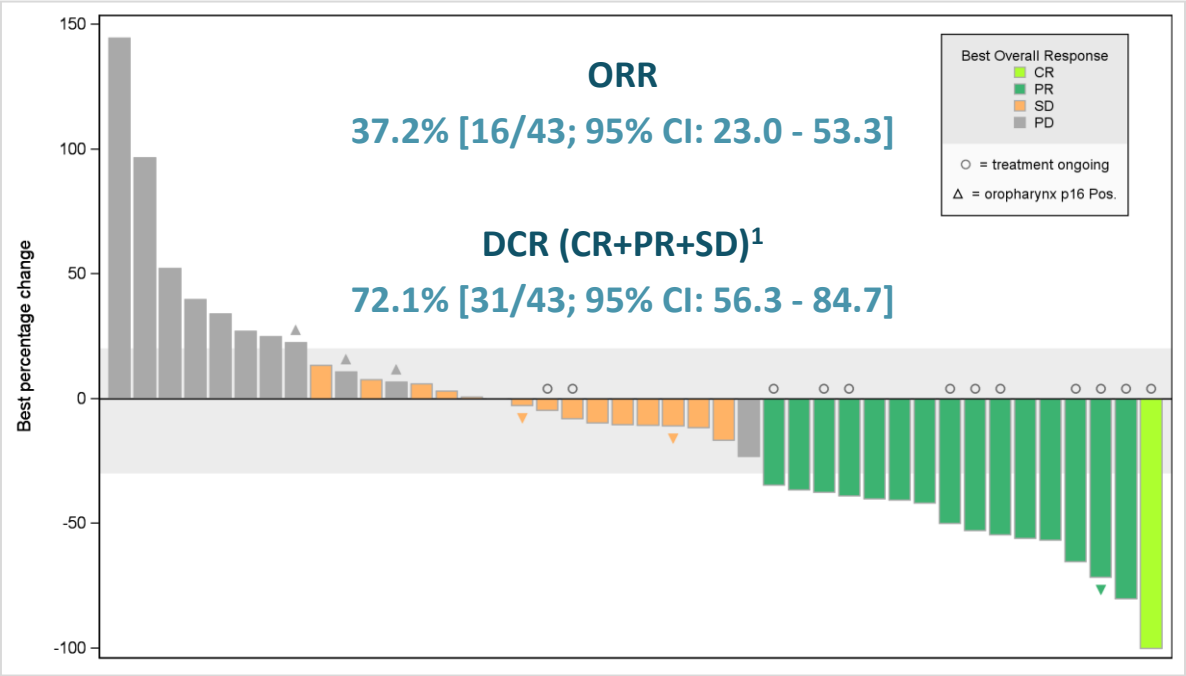
| Patient Disposition | N=49 |
|---|---|
| **Petosemtamab treatment** | |
| Treatment continuing | 12 (25%) |
| Treatment discontinuation | 37 (75%) |
| ▪ Disease progression | 31 (63%) |
| ▪ Related adverse event[1] | 4 (8%) |
| ▪ Other[2] | 2 (4%) |
| **Petosemtamab exposure duration,** months | |
| ▪ Median (range) | 4.1 (0.5 - 20.8) |

[1] *Grade 3-4 IRR*
[2] *End of study reason was physician decision following IRR on Day 1 for one patient and one patient died due to underlying disease*

# Robust Data Supporting Clinical Efficacy in HNSCC

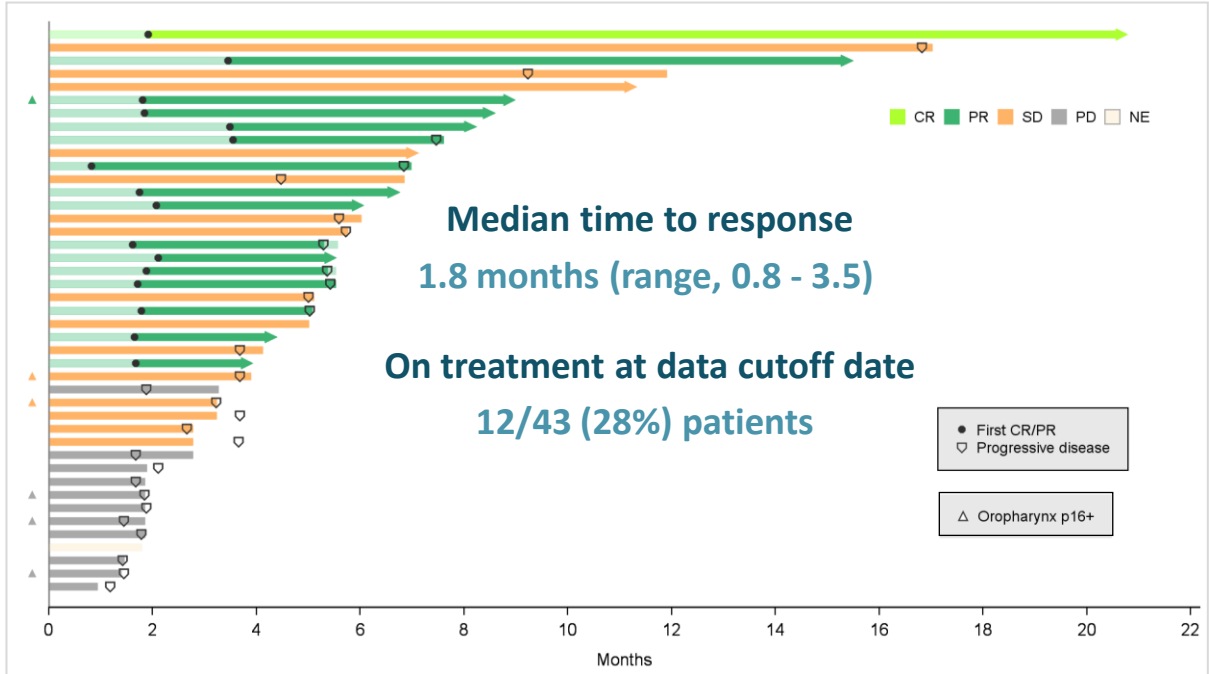
## *Overall response rate (ORR) 37%*

### Best Percent Change in Sum of Target Lesions From Baseline (N=43)




*One patient with best overall response of not evaluable not included due to no post-baseline tumor assessment*
*p16 status was available in 9 of the 15 oropharynx patients (6 positive and 3 negative) in the efficacy evaluable population*

### Time to Response and Duration of Therapy




*Arrows indicate treatment is ongoing at data cutoff date*
*p16 status was available in 9 of the 15 oropharynx patients (6 positive and 3 negative) in the efficacy evaluable population*



[1]*DCR, disease control rate; CR, complete response; PR, partial response; SD, stable disease*

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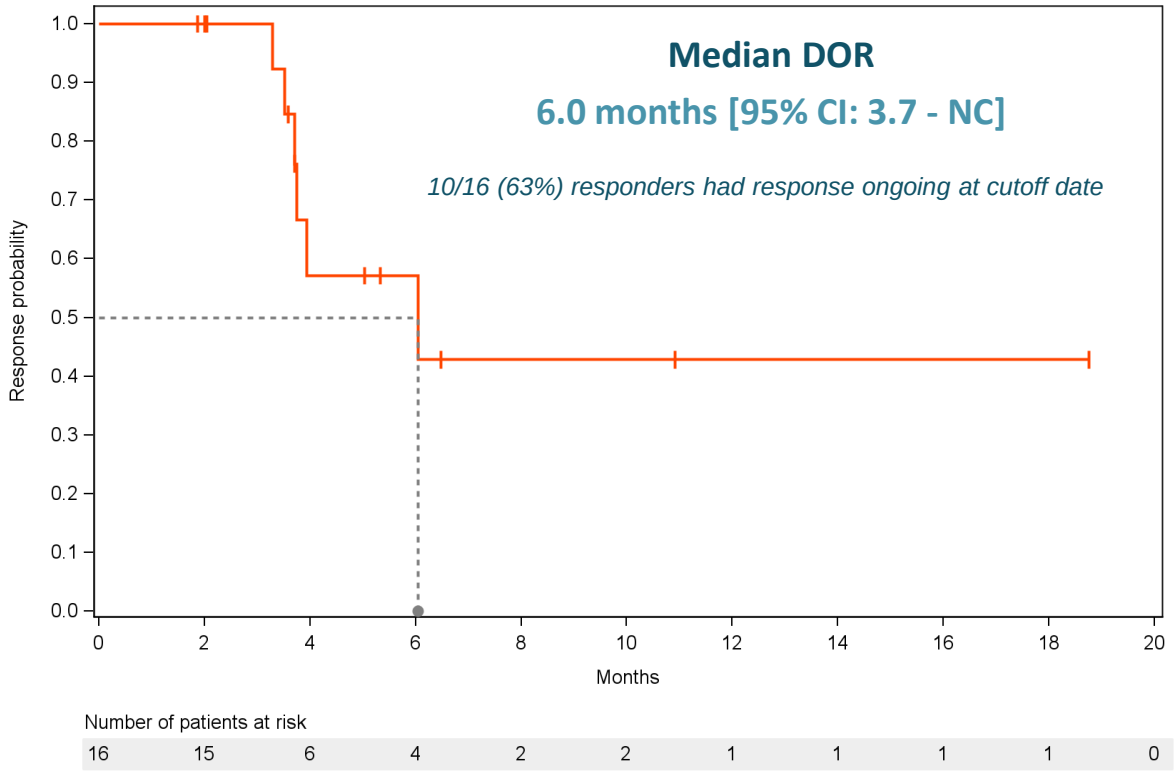
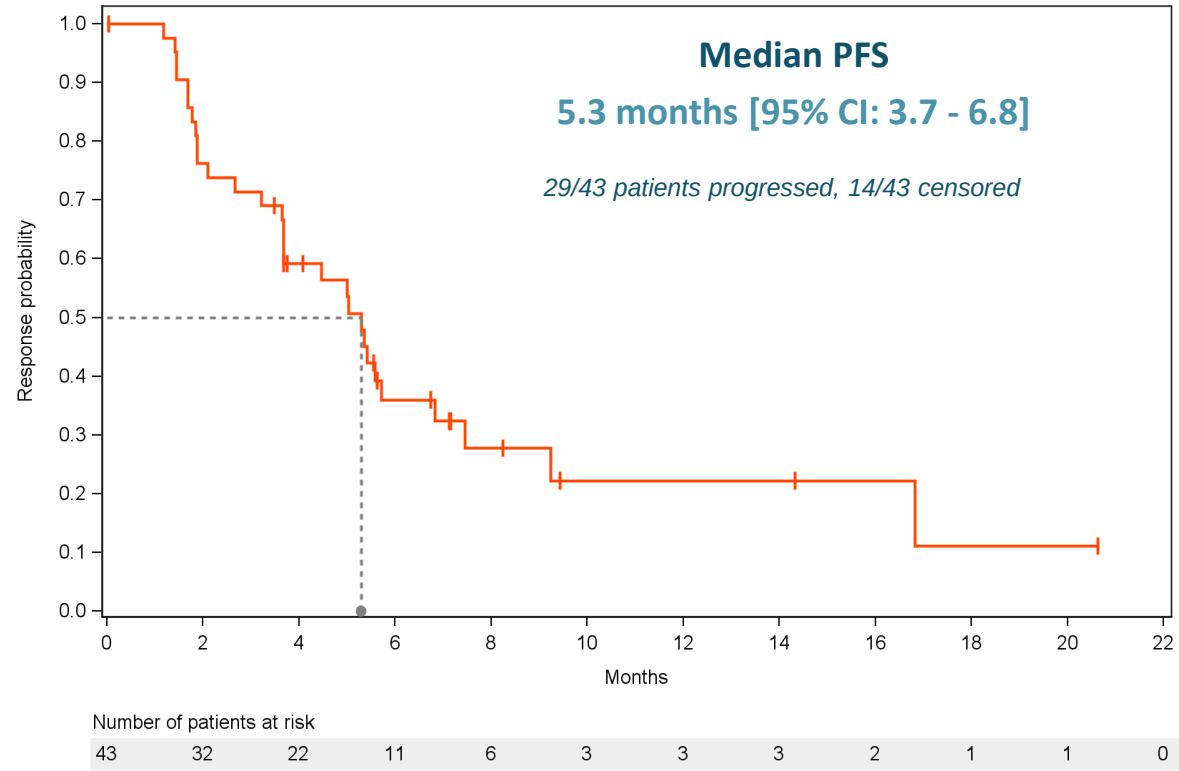
# Petosemtamab Antitumor Activity in HNSCC

## *DOR, PFS (RECIST 1.1, per Investigator), and OS[1]*




**Median OS**

**11.5 months [95% CI: 7.2 - 20.6]**

*29/49 patients still alive at data cutoff date*



[1]*DOR, duration of response; PFS, progression free survival, OS, overall survival*

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# Safety Profile of Petosemtamab 1500 mg Q2W

## Overall Safety

- **Well tolerated** and manageable safety profile based on 80 patients treated at the recommended dose across dose escalation and expansion cohorts of the study
- Gastrointestinal and skin toxicities were mostly mild to moderate
- No treatment-related grade 5 adverse events (AEs)

## IRRs (Composite Term)

- 74% grade 1-4, 21% grade 3-4
- Mainly occurred during first infusion
- 6 of 80 patients discontinued on Day 1 due to a grade 3-4 infusion related reaction (IRR)
- For all patients rechallenged after an IRR, rechallenge was successful
- IRRs were manageable with prophylaxis/ prolonged infusion (necessary on Day 1 only)

| Preferred Term | Irrespective of Causality (>10%) | | Suspected Related | |
|---|---|---|---|---|
| | All Grades | Grades 3-5[1] | All Grades | Grades 3-5 |
| **N patients with ≥1 AE** | **80 (100%)** | **42 (53%)** | **80 (100%)** | **26 (33%)** |
| Rash | 29 (36%) | 0 | 29 (36%) | 0 |
| Dyspnea | 22 (28%) | 3 (4%) | 13 (16%) | 3 (4%) |
| Hypotension | 21 (26%) | 5 (6%) | 20 (25%) | 5 (6%) |
| Nausea | 21 (26%) | 1 (1%) | 14 (18%) | 0 |
| Dermatitis acneiform | 20 (25%) | 1 (1%) | 20 (25%) | 1 (1%) |
| Infusion related reaction | 17 (21%) | 10 (13%) | 16 (20%) | 10 (13%) |
| Blood Mg decreased | 16 (20%) | 4 (5%) | 13 (16%) | 3 (4%) |
| Diarrhoea | 16 (20%) | 0 | 7 (9%) | 0 |
| Erythema | 15 (19%) | 0 | 15 (19%) | 0 |
| Fatigue | 13 (16%) | 1 (1%) | 5 (6%) | 0 |
| Asthenia | 12 (15%) | 2 (3%) | 5 (6%) | 1 (1%) |
| Pruritus | 11 (14%) | 0 | 11 (14%) | 0 |
| Constipation | 11 (14%) | 0 | 2 (3%) | 0 |
| Skin fissures | 11 (14%) | 0 | 11 (14%) | 0 |
| Decreased appetite | 9 (11%) | 2 (3%) | 0 | 0 |
| Dry skin | 9 (11%) | 0 | 8 (10%) | 0 |
| Flushing | 9 (11%) | 2 (3%) | 8 (10%) | 2 (3%) |
| Headache | 9 (11%) | 0 | 7 (9%) | 0 |
| Hypoxia | 9 (11%) | 2 (3%) | 7 (9%) | 1 (1%) |
| Pyrexia | 9 (11%) | 0 | 3 (4%) | 0 |
| Stomatitis | 9 (11%) | 0 | 8 (10%) | 0 |



[1] *2 patients had Grade 5 AEs not related to treatment*

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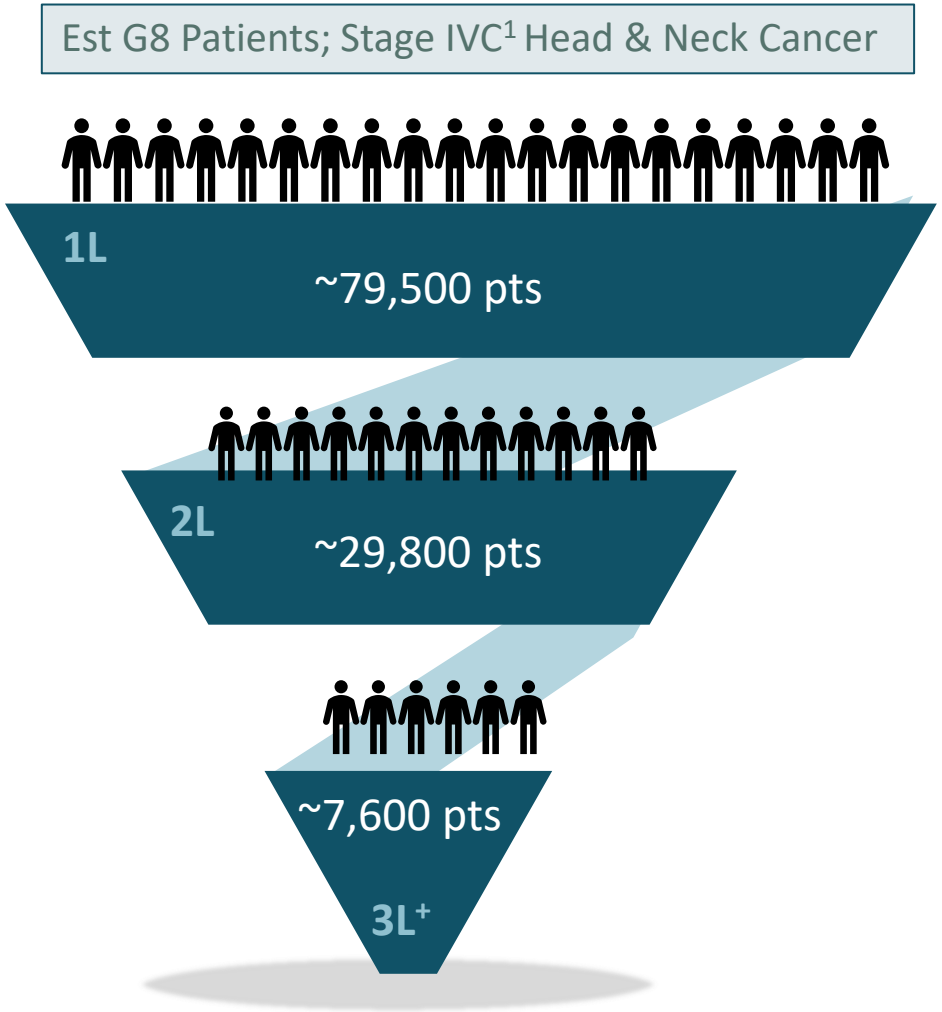
# Head & Neck Cancer

## *Petosemtamab has the potential to become a new standard of care*




### High Prevalence, Mortality & Unmet Need

- 6th most common cancer worldwide (WW) in 2020 with ~930,000 new cases and 467,000 deaths[2]
- Incidence rising; anticipated to increase by 30% to >1 million new cases annually by 2030[3]

### Treatment Paradigm Trends

- **1L**: Pembrolizumab-based regimens are preferred
- **2L**: Fragmented market with cetuximab-based regimens often utilized & some use of pembrolizumab or nivolumab
- **3L**: Highly fragmented treatment paradigm

### Opportunity in Head & Neck Cancer

- WW Market expected to exceed $4.7B in 2028[4]
- Limited treatment options after platinum-based chemotherapy + pembrolizumab
- Opportunity for chemo-free regimen 1L in combo with pembrolizumab

*[1] Data: Kantar CancerMPact Epidemiology Pulled July 2023. Estimates rounded. Statistics from CancerMPact® Patient Metrics. G8 Includes: US,FR,DE,IT,SP,UK,JP, CN (Urban only); [2] Sung et al. CA Cancer J Clin, 71:209-49, 2021; [3] Johnson, D.E., Burtness, B., Leemans, C.R. et al. Head and neck squamous cell carcinoma. Nat Rev Dis Primers 6, 92 (2020); [4]Evaluate Pharma*



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# Petosemtamab

## *Potential first and best in class bispecific targeting EGFR and LGR5*

**Meaningful Clinical Activity** observed in previously treated HNSCC[1]

- 37.2% ORR (95% CI: 23.0-53.3)
- 6 months median DOR (95% CI: 3.7-NC)
- Antitumor activity independent of biomarkers

**Generally well tolerated & manageable safety** profile[1]

- Gastrointestinal and skin toxicities were mostly mild to moderate
- Most frequent related AEs were infusion related reactions (IRRs)
- IRRs were manageable with prophylaxis/ prolonged infusion (necessary on Day 1 only)

**Potential new standard of care** for patients with HNSCC

- Limited treatment options after pembrolizumab and platinum-based chemotherapy
- Significant market opportunity

**Powerful single agent efficacy**

**2L+ HNSCC** phase 3 trial planned to start mid-2024

**1L HNSCC** evaluation of petosemtamab with pembrolizumab ongoing; clinical update planned 2024 ASCO®



[1] *Based on interim data presented at AACR with a Feb. 1, 2023 cutoff date, Cohen, et al., AACR 2023*

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# *Potential first in class and best in class for NRG1+ cancer*

# Zenocutuzumab

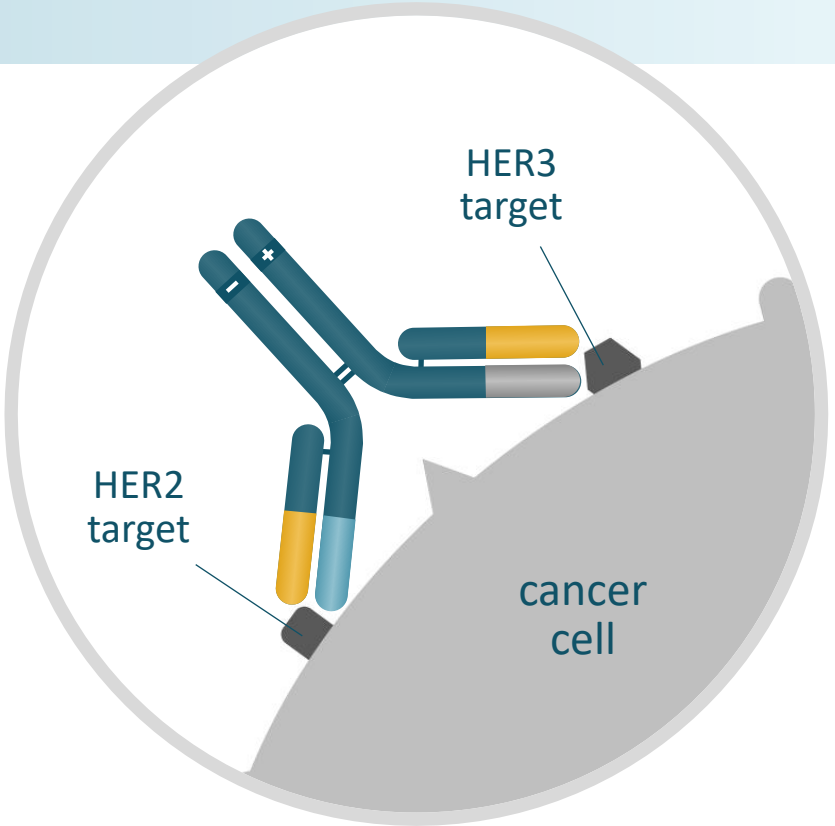
MCLA-128 or Zeno
HER2 x HER3 bispecific

## NRG1 fusions

- Translocations of the Neuregulin-1 (NRG1) gene, also called Heregulin, the ligand for the HER3 receptor. Rare events in solid tumors reported to typically occur in the absence of other cancer driver mutations[1]
- Reported as associated with poor prognosis[1], lower response rates to standard therapy[2], and shorter overall survival in lung cancer[1,3]

## Zeno

- Biclonics® antibody binds to HER2 and blocks HER3; 100-fold more potent *in vitro* than anti-HER3 mAbs tested[4]
- Granted orphan designation for PDAC, BTD for both NRG1+ NSCLC and NRG1+ PDAC; FTD for NRG1+ cancer[5]
- BLA accepted for priority review for NRG1+ NSCLC & PDAC




*[1] Chang et al., Clin Cancer Research 2021,*
*[2] Drilon et al., J Clin Oncol 2021,*
*[3] Shin et al., Oncotarget 2016,*
*[4] Geuijen, et al., Cancer Cell 2018,*
*[5] For details and complete description of designations see prior releases https://ir.merus.nl/news-releases*



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# Schema Global, Multicenter Zenocutuzumab NRG1+ Cancer Development Program

Ongoing phase 1/2 global, open-label clinical trial (eNRGy) + Early Access Program (EAP)

NSCLC, PDAC, and other solid tumors

**Inclusion Criteria**

- Locally advanced unresectable or metastatic solid tumor
- NRG1+ cancer
- Previously treated with or unable to receive standard therapy
- ≥ 18 years of age
- ECOG PS ≤ 2

**Treatment Plan**

- Zenocutuzumab 750 mg IV Q2W until PD
- Tumor assessment Q8W

**Follow-up**

Survival follow-up: up to 2 years

## Endpoints and Population

**Primary endpoint includes**

Overall response rate (ORR) using RECIST v1.1 per investigator assessment

**Secondary endpoints includes**

Duration of response (DOR), ORR per central review, safety

**Primary analysis population**

≥ 1 dose of zenocutuzumab, opportunity for ≥ 24 weeks follow-up at the data cutoff date, and met criteria for primary efficacy population

## Enrollment and Analysis

**Data cutoff date**

July 31, 2023

**Enrollment**

105 patients with NRG1+ NSCLC

**NSCLC primary analysis population**

79 patients

87 patients with ≥ 24 weeks follow-up; of them, 8 patients were excluded

- 2 patients discontinued early for reasons not related to PD
- 2 patients with prior anti-HER3 inhibitor
- 2 patients with other genetic driver mutation
- 1 patient with concomitant anti-cancer medication use
- 1 patient with baseline scan > 5 weeks before first dose

## Enrollment and Analysis

**Data cutoff date**

July 31, 2023

**Enrollment**

44 patients with NRG1+ PDAC

**PDAC primary analysis population**

33 patients

38 patients received first treatment allowing for ≥ 24 weeks follow-up; of them, 5 patients were excluded

- 2 patients with other genetic driver mutations
- 1 patient with prior anti-HER3 therapy
- 1 patient with a nonfunctional NRG1 fusion
- 1 patient with a baseline scan > 5 weeks before the first dose

MADRID 2023 ESMO congress



*Schram et al, ESMO 2023, data cut off July 31, 2023*

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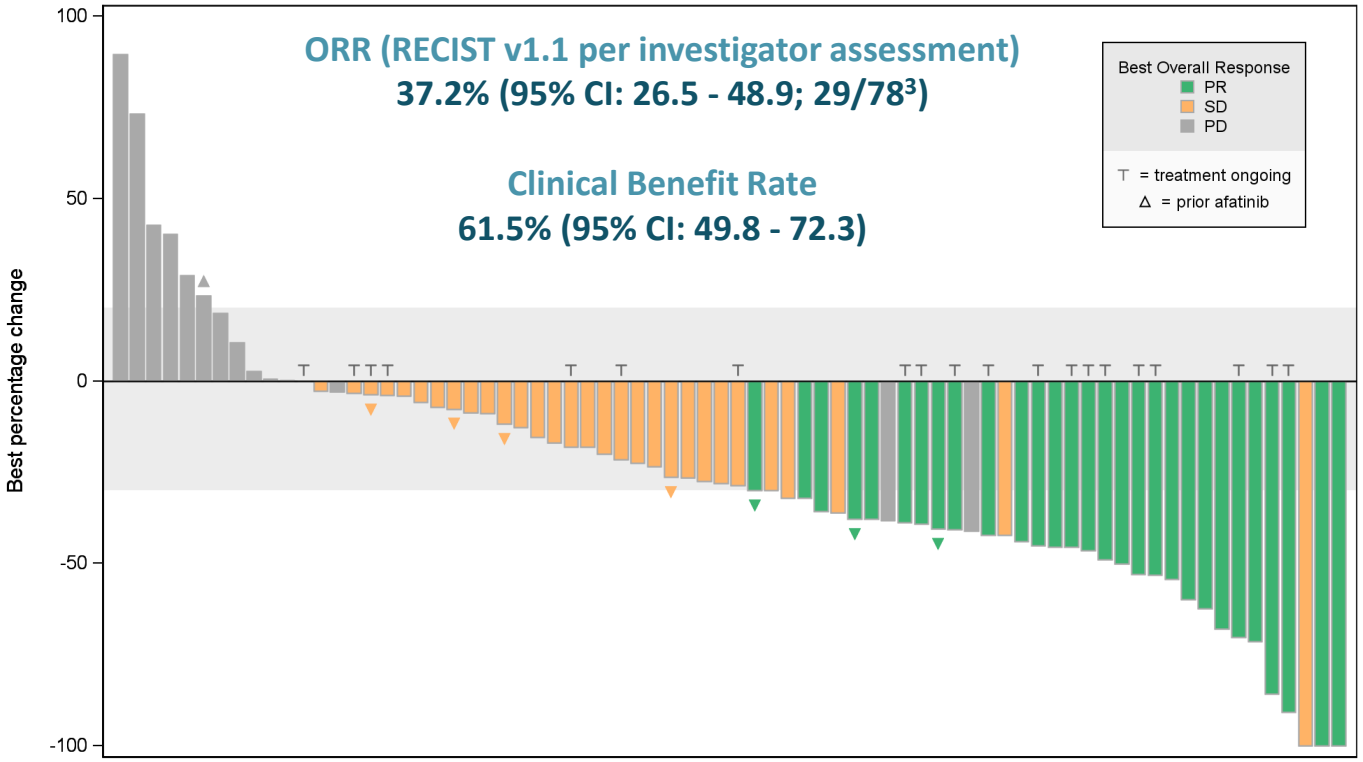
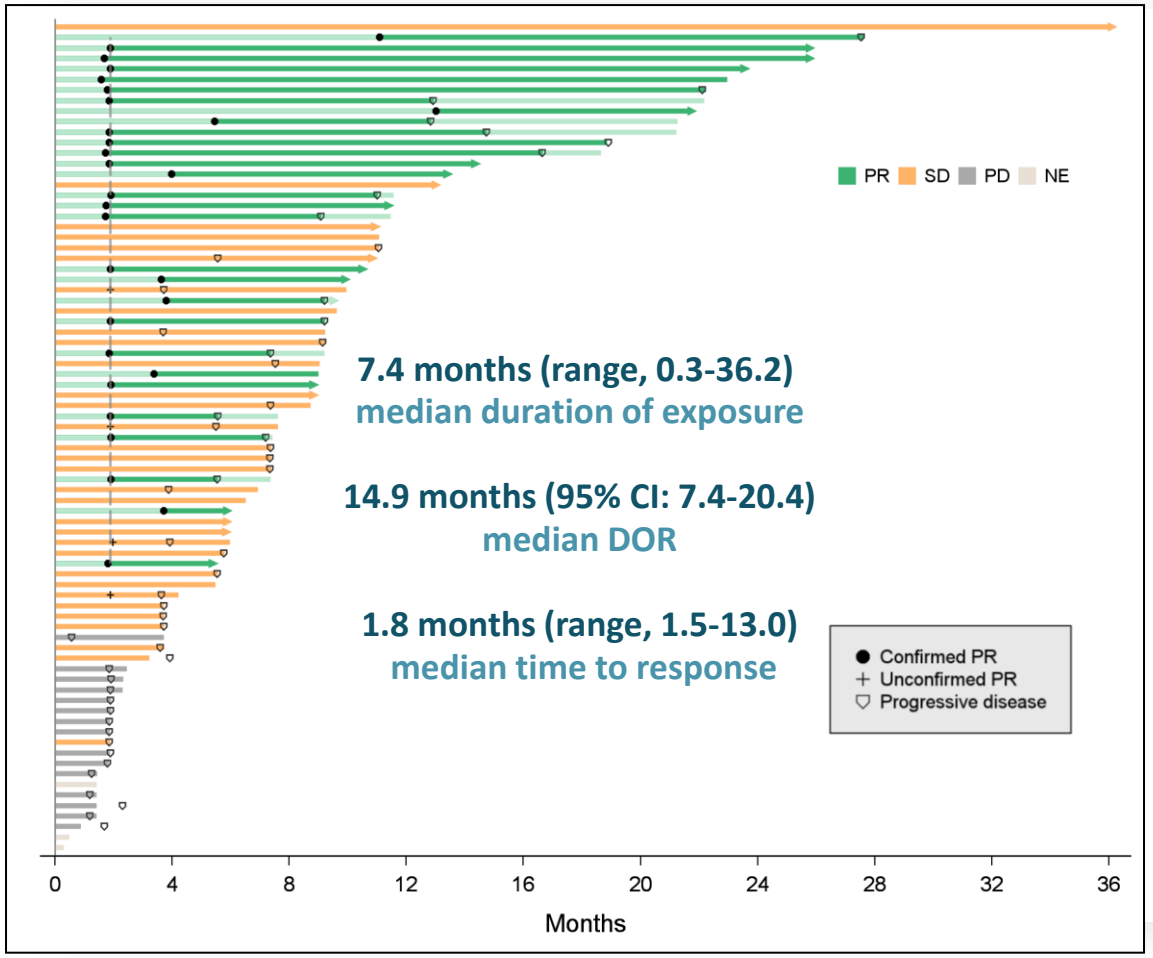
# Zeno Activity in NRG1+ NSCLC[1]

## *ORR 37%; Median DOR 15 months*

### Best Percent Change in Target Lesions from Baseline[2]




*Arrows indicate treatment was ongoing at the cutoff date*

[1]Schram et al, ESMO 2023

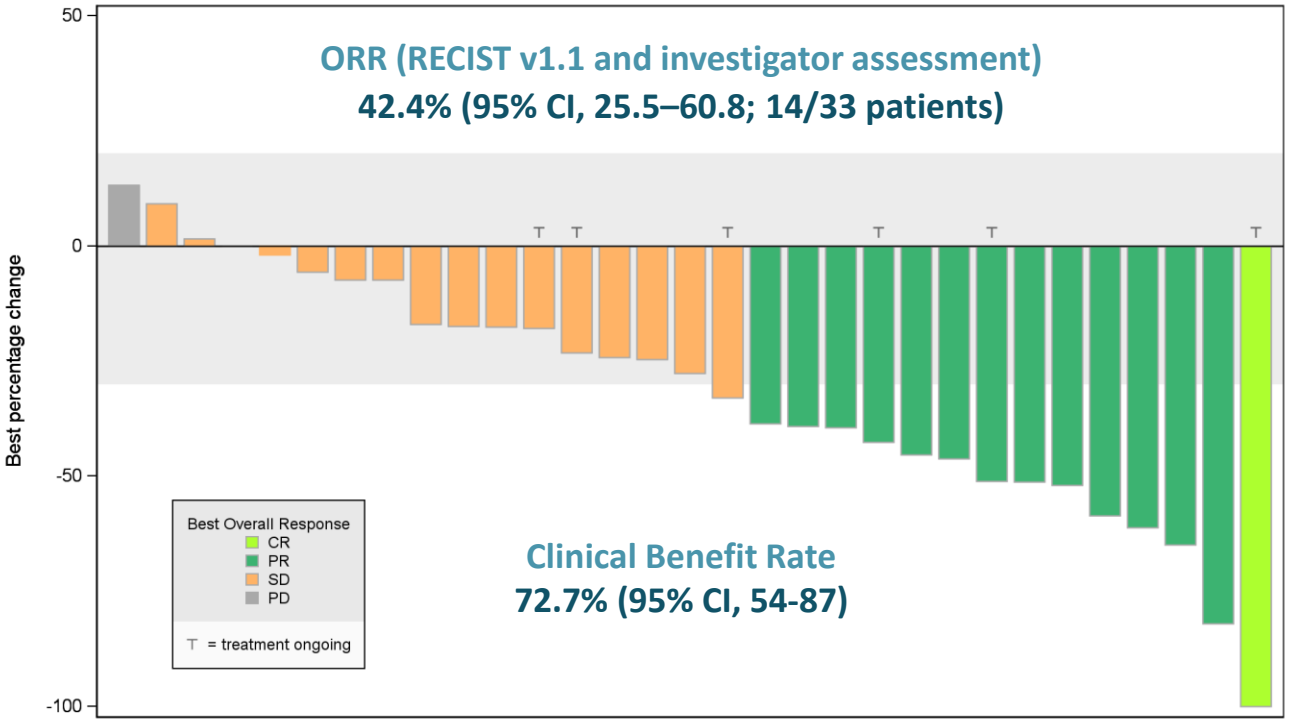
*[2] Excludes 4 patients, 3 due to absence of post baseline assessment and 1 due to incomplete assessment of target lesion at first post baseline assessment.*

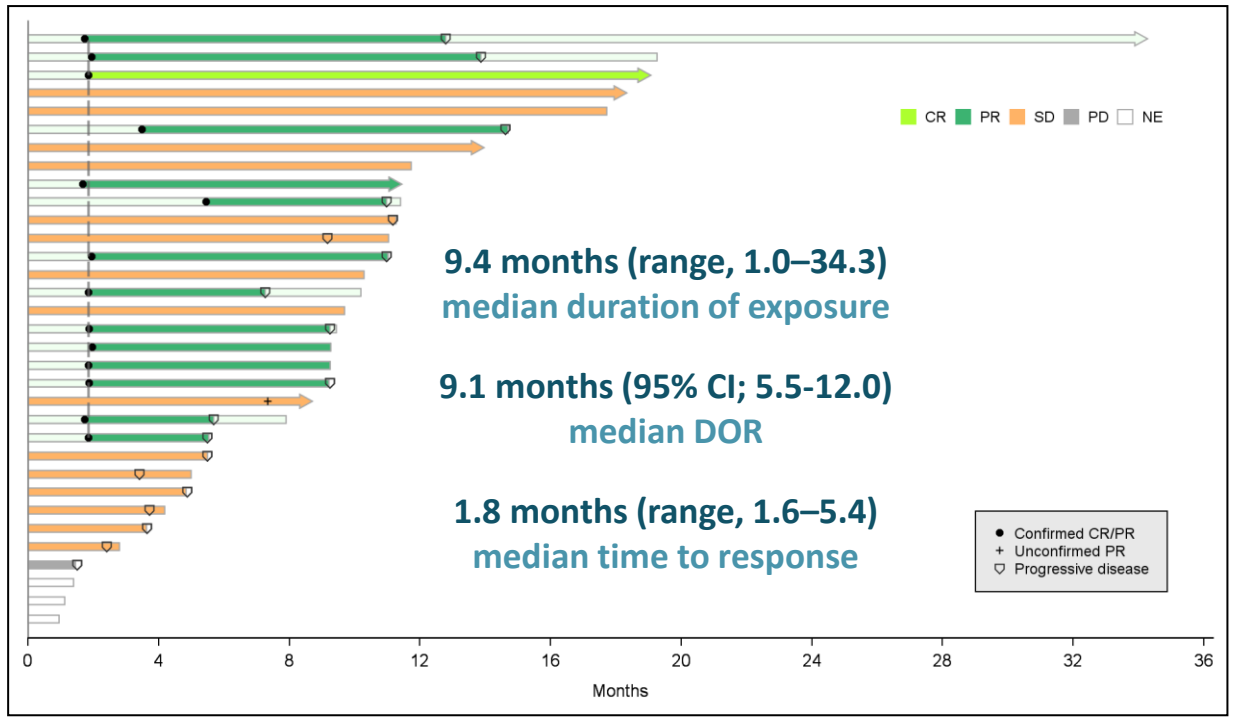
*[3] 1 patient with non-measurable disease was excluded from analysis.*

# Zeno Activity in NRG1+ PDAC[1]

## *ORR 42%; Median DOR 9 months*

Best Percent Change in Sum of Target Lesions Diameter from Baseline[2]




*Arrows indicate treatment was ongoing at the cutoff date*

MADRID 2023 ESMO congress

[1]*Schram et al, ESMO 2023*

[2]*Excludes 2 patients without a post baseline tumor assessment.*



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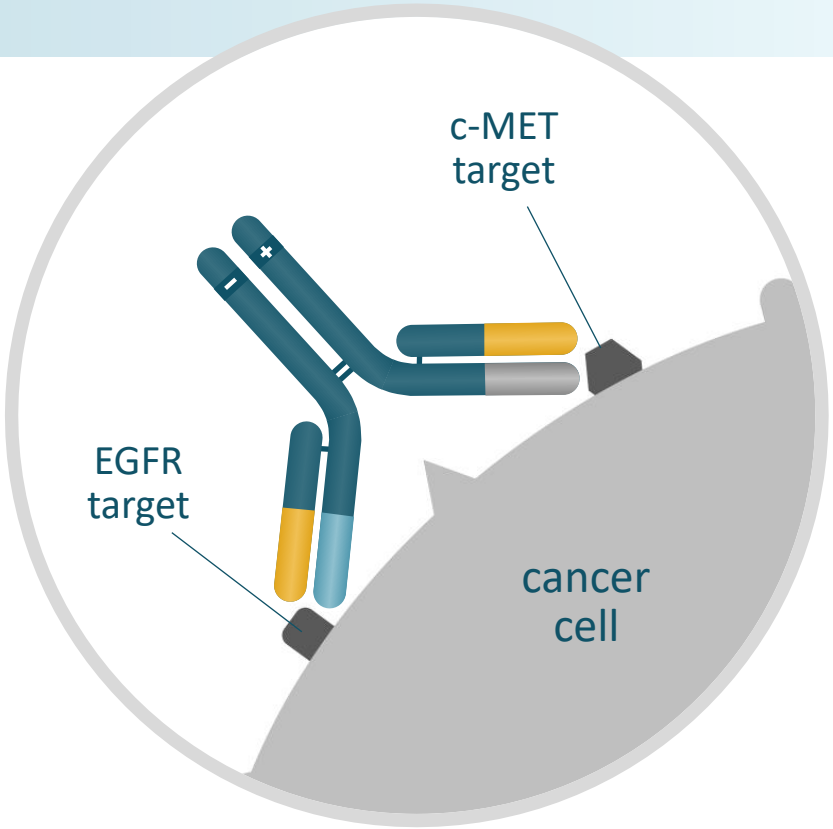
## *Designed to target lung cancer and other solid tumors expressing EGFR and c-MET*

# 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 (FcγRIII 158F) variant effector cells[1]
- Significant potential opportunity in lung cancer
- Clinical data update from three expansion cohorts published at ESMO Asia 2023; evaluation continues in MET exon14 skipping NSCLC with initial clinical data planned 2024 ASCO®
- MCLA-129 in combination with chemotherapy in 2L+ EGFRm NSCLC (planned to start 2024)



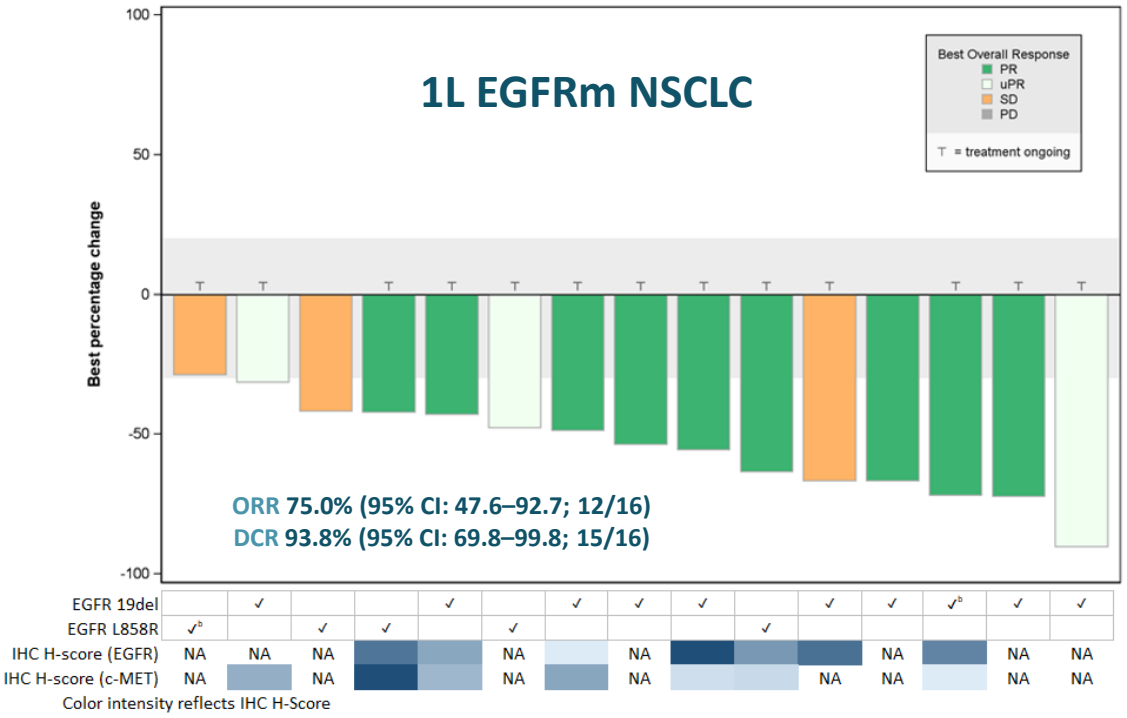


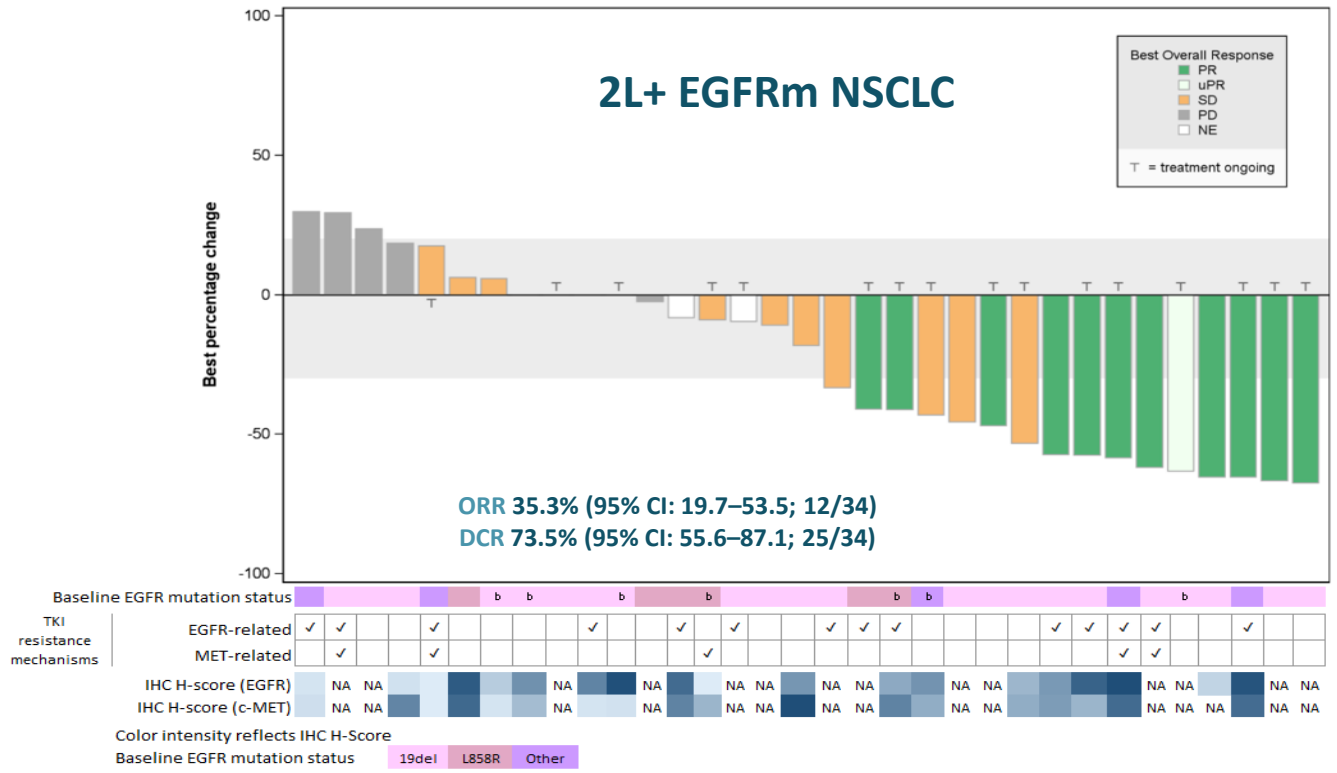

[1] de Gorter, et al. AACR 2023

Merus

# MCLA-129 in Combination with Osimertinib in NSCLC[1]

*Best % change in target lesions from baseline by RECIST v1.1 per investigator*




## Trial Design

- **Drug:** MCLA-129 1500 mg IV Q2W & osimertinib 80 mg QD
- **Primary endpoint:** ORR using RECIST v1.1 per investigator assessment
- **Data cutoff date:** August 10, 2023
- **Enrollment/Safety population:** 60 EGFRm NSCLC pts; 16 1L/44 2L+
- **Efficacy population[2]:** 16 pts in 1L; 34 pts in 2L+

## Safety across 1L and 2L+ Cohorts

- IRRs (composite term) in 87% (12% ≥ grade(G) 3)
- Treatment discontinuations in 14 (23%) pts
- Treatment related interstitial lung disease (ILD)/pneumonitis in 13 pts (22%): four G1, two G2, four G3, and three G5
- Venous thromboembolic (VTE) events in 23%; 5% treatment related



*[1] Cappuzzo et al, ESMO Asia 2023; [2] 9 patients in 2L+ excluded, with < 2 cycles and discontinued for reasons not related to PD; 1 patient in 2L+ with < 2 cycles ongoing at the data cutoff date was not part of the efficacy analysis population*

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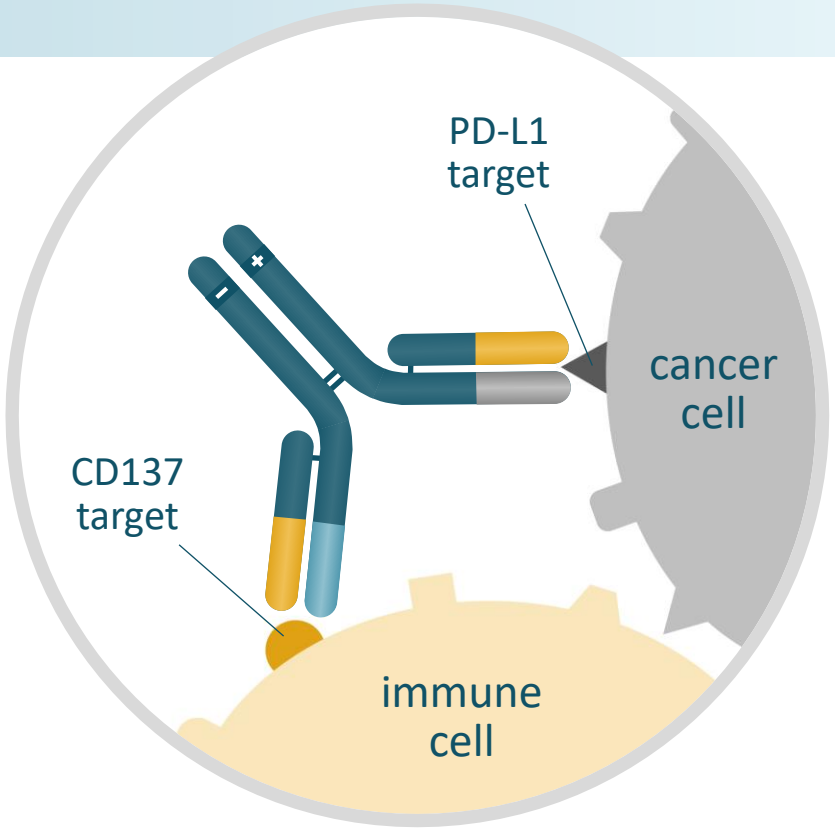
## *Designed to recruit and activate tumor infiltrating T-cells*

# MCLA-145

PD-L1 x CD137 bispecific

- Binds to PD-L1 on tumor cells and CD137 (4-1BB), a potent activator of tumor infiltrating T-cells, on activated T-cells[1]
- Targets PD-L1 positive cells in the tumor and blocks the PD-1/PD-L1 inhibitory signal[2]
- Potential in a variety of solid tumors
- Evaluation of MCLA-145 continues in combination with a PD1 inhibitor; initial clinical data planned 2024 ASCO®



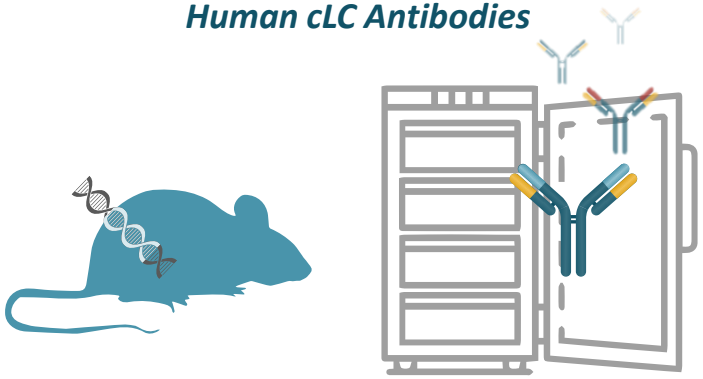

[1] *Prenen, et al., ESMO IO 2021*
[2] *Geuijen, et al., AACR 2019*



Merus

# Our Platform – Unique Capabilities in Multispecific Antibodies

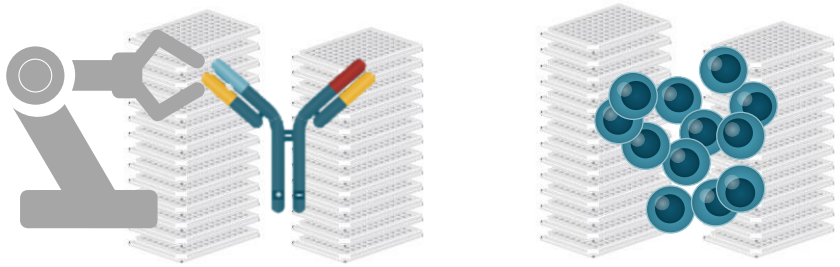
## *Generate*
***Human cLC Antibodies***



### *Patented Mouse Technology*
"Merus Mouse" (MeMo®) to generate diverse, high quality common light chain (cLC) antibody panels

### *Established Inventory*
Diverse panels of cLC antibodies against numerous targets

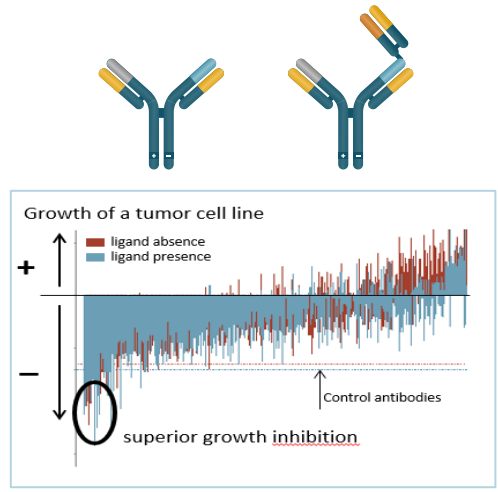
## *Evaluate*
***Thousands of Multispecific Abs***



### *Multiclonics® Libraries*
Robotics generate thousands of Multiclonics® by combining cLC antibody panels and our patented "DEKK" IgG heterodimerization technology

### *Unbiased Screening*
In-format, unbiased functional screening in relevant molecular and cellular assays

## *Identify*
***Best Candidates***



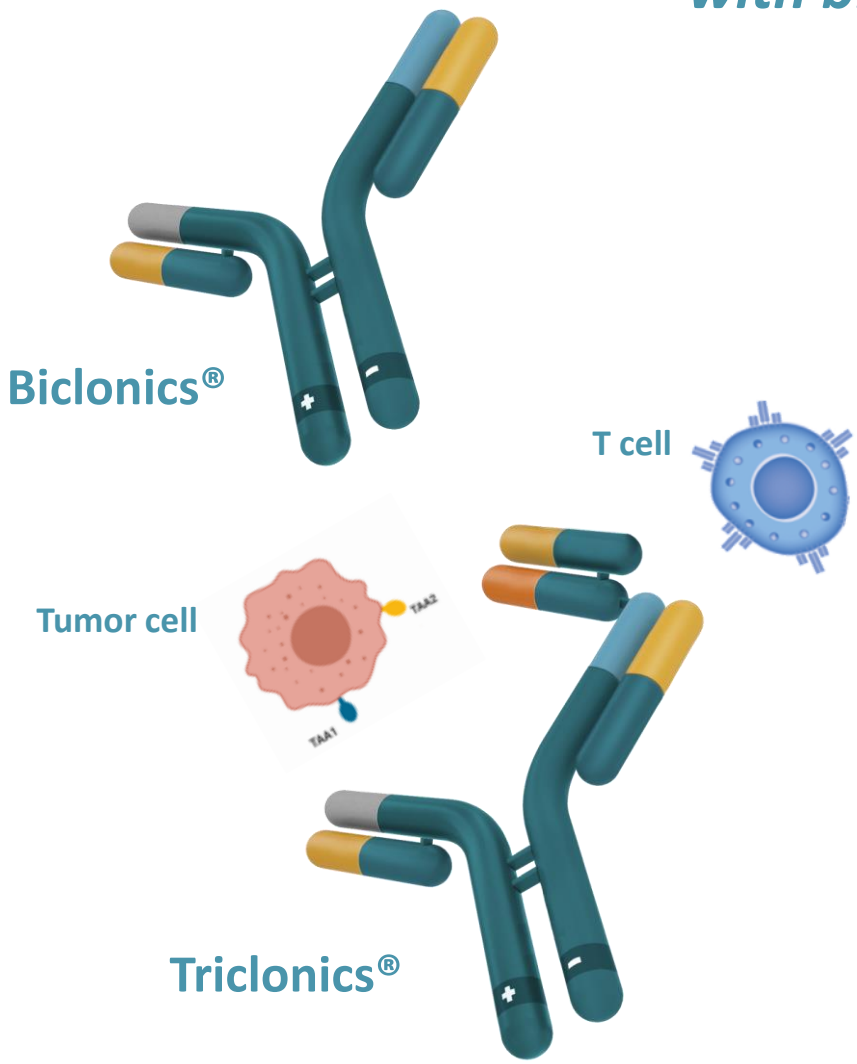

Develop unique, best candidates from thousands of different Biclonics® and Triclonics® with potential to achieve meaningful clinical activity in patients



Merus

# Merus Multiclonics®

## *Bispecific and Trispecific therapeutic candidates for cancer with broad application for human disease*




**Large-scale screening of Biclonics® and Triclonics®**

- *To select the best molecules from up to 1,000s of candidates*

**Fully human IgG structure**

- *Ease of manufacturing*
- *Low immunogenicity risk*
- *Predictable in vivo behavior*
- *Durable, consistent half life*
- *Potential for ADCC enhancement and Fc silencing*

**Novel, innovative trispecific Triclonics® format**

- *Allows for three specificities without the need to engineer each individual Fab*
- *Significant tumor cell binding designed to occur when both tumor-associated antigen (TAA)1 and TAA2 are present, or as a bi-paratopic*
- *T cell activation designed to occur when the molecule binds at sufficient levels to the tumor cells*

**Robust IP portfolio of patents covering the platform technology, including**

- *Common light chain antibody generation and screening*
- *Dimerization by charge engineering*



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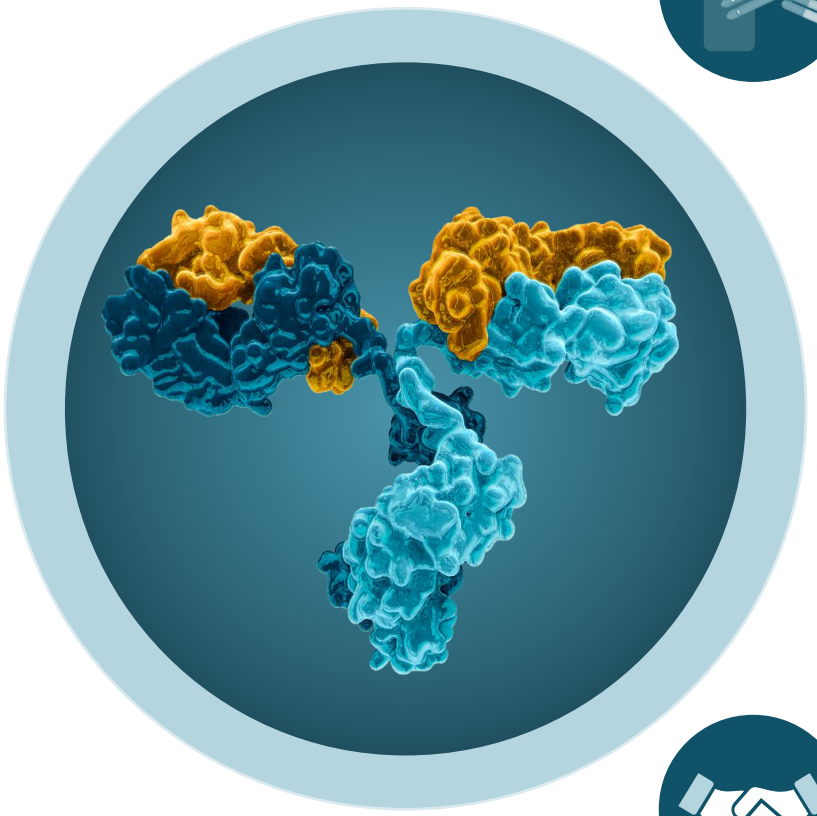
# Merus Overview



## 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

- The FDA has accepted a Biologics License Application (BLA) for priority review for zenocutuzumab (Zeno) in NRG1 fusion (NRG1+) non-small cell lung cancer (NSCLC) and pancreatic cancer (PDAC)
- Petosemtamab granted breakthrough therapy designation (BTD) and fast track designation (FTD) for previously treated recurrent or metastatic head and neck squamous cell cancer (HNSCC)[2]
- MCLA-129[3] highly active in an evolving competitive landscape of EGFRm NSCLC development

## Strong Cash Position into 2027[1]

- Well capitalized into multiple planned clinical milestones
- Phase 3 trial of petosemtamab monotherapy in 2L+ HNSCC planned to start in mid-2024

## Strategic Collaborations to Unlock Value from our Multiclonics® Platforms

- Multiple strategic collaborations and license agreements, researching Biclonics® and Triclonics® candidates for clinical development for potential future milestone and royalty opportunities

*[1] See May 8, 2024 10-Q noting our belief that our cash, cash equivalents and marketable securities, will fund our operations into 2027*
*[2] For further details of the BLA acceptance, BTD and FTD see prior releases https://ir.merus.nl/news-releases*
*[3] Cappuzzo et al, ESMO Asia 2023*



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# Merus

*closing in on cancer*