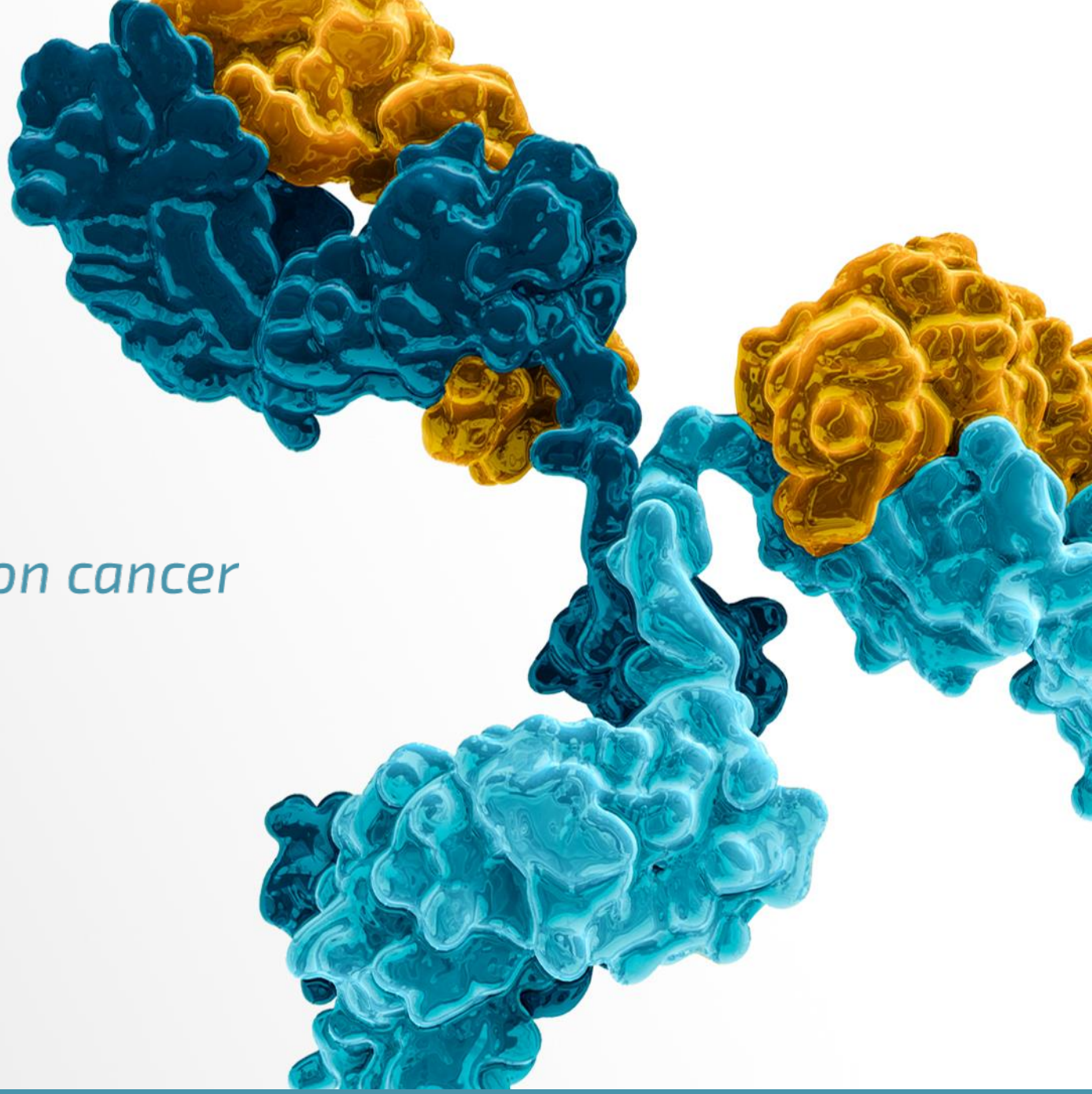
Merus *closing in on cancer*



Corporate Presentation

May 2023

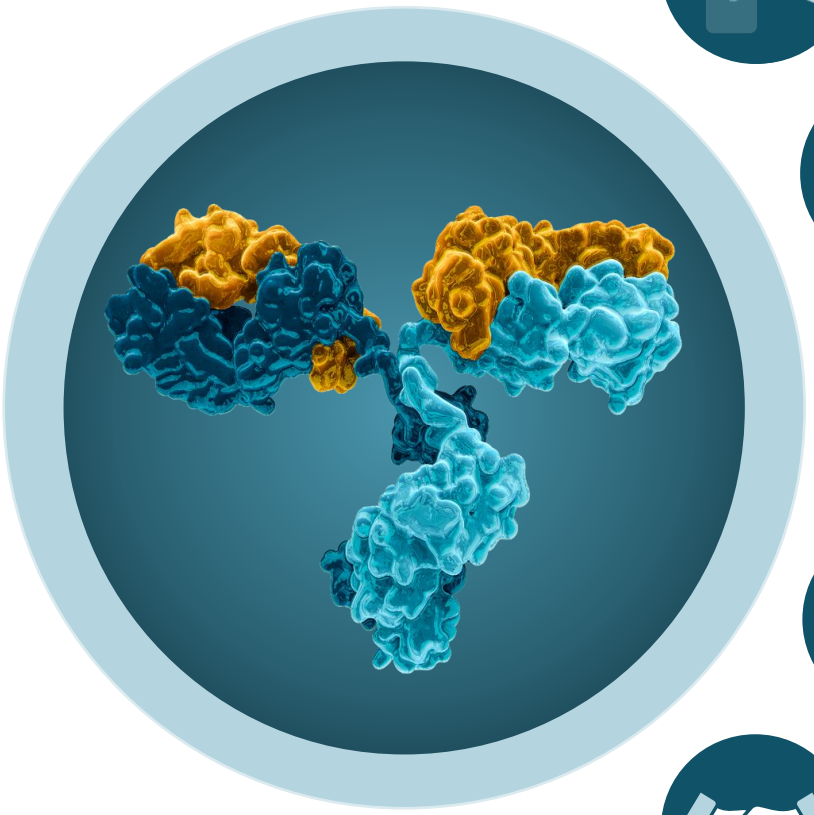
Disclaimer

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, 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 March 31, 2023 filed on May 4, 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.

Merus

Merus Overview



Oncology-focused Company Developing Multispecific Antibody Therapies

Bispecific and trispecific cancer therapeutic candidates in the human IgG format

Leading Multispecific Antibody (Multiclonics®) Platforms

Common light chain format 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 monotherapy and with pembrolizumab in head and neck cancer (HNSCC); Registration-directed trial of **Zeno** in NRG1 fusion (NRG1+) cancer and with androgen deprivation therapy (ADT) in prostate cancer (CRPC); **MCLA-129** in lung and other solid tumors

Near-Term Planned Trial Updates and Strong Cash Position into 2026[1]

Petosemtamab potential registrational path update planned in Q3 2023; Zeno potential regulatory path and timing update planned in 1H23, clinical update on NRG1+ cancer at a major medical conference in 2023, Zeno in CRPC in 2H23; MCLA-129 in solid tumors in 2H23

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 May 23, 2023 8-K noting our belief that our cash, cash equivalents and marketable securities, will fund our operations into second half 2025*

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Merus Clinical Pipeline

PROGRAM	BISPECIFIC TARGETS	INDICATION(S)	PRECLINICAL	PHASE 1	PHASE 1/2	STATUS
Zenocutuzumab (Zeno) (MCLA-128)	HER2 x HER3	NRG1+ cancer with afatinib in NRG1+ NSCLC with androgen deprivation therapy (ADT) in castration-resistant prostate cancer (CRPC) Other cancers				• Phase 1/2 eNRGy monotherapy registration-directed trial in NRG1+ cancer • Clinical update on Zeno monotherapy in NRG1+ cancer planned 2023 • Initial clinical data update in CRPC planned 2H23
Petosemtamab (MCLA-158)	EGFR x LGR5	Head and neck squamous cell carcinoma (HNSCC) with a PD1 inhibitor in 1L HNSCC				• Phase 1/2 trial ongoing • Combination initiated
MCLA-129	EGFR x c-MET	Solid tumors with a 3rd gen EGFR TKI in NSCLC	BETTA (China)			• Phase 1/2 trial ongoing • Clinical update planned 2H23
MCLA-145	CD137 x PD-L1	Solid tumors with a PD-1 inhibitor in solid tumors				• Phase 1 trial ongoing
ONO-4685[1]	PD-1 x CD3	Relapsed/Refractory T Cell Lymphoma; Psoriasis	ONO			• Phase 1 trial ongoing
INCA32459[1]	LAG3 x PD-1	Advanced malignancies	Incyte			• Phase 1 trial ongoing[2]

[1] If commercialized, Merus to receive royalties
[2] Incyte February 7, 2023 10K

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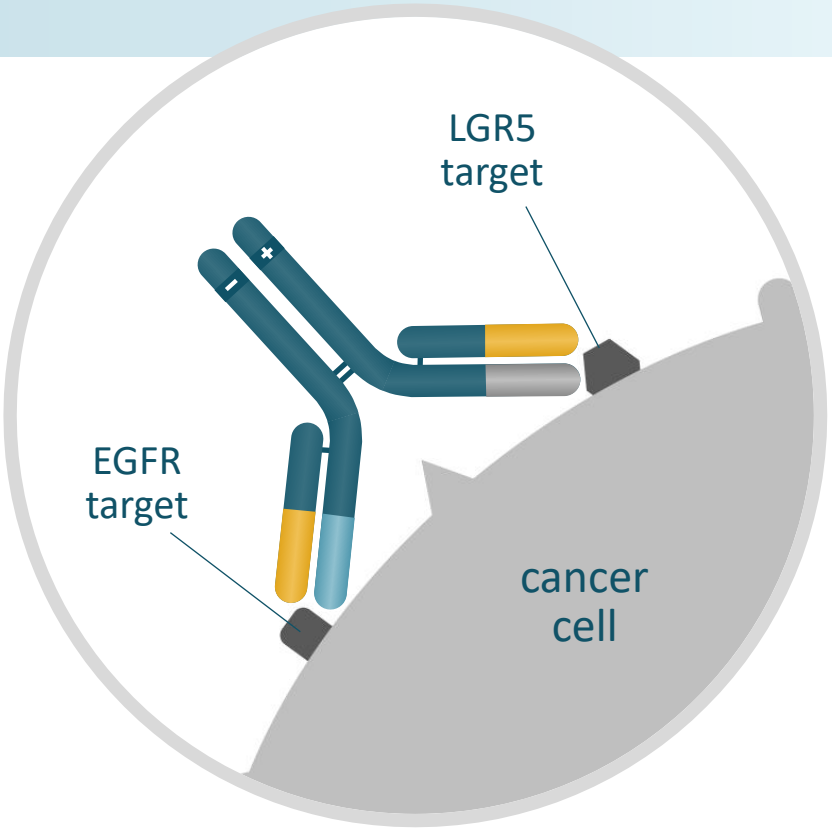
Potential first in class EGFR x LGR5 Biclonics® designed to potently block dysregulated signaling and growth in solid tumors[1]

Petosemtamab

MCLA-158
EGFR x LGR5 bispecific

- Targets EGFR and LGR5, a cancer-stem cell antigen
- Designed to block growth in WNT-dysregulated tumor models including Ras^{mut}
- Modifications to enhance ADCC
- Phase 1/2 monotherapy trial ongoing in unselected previously treated patient population with HNSCC
- Cohort initiated in untreated HNSCC in combo with PD1 inhibitor
- Clinical update provided at AACR 2023[2]
- Potential registration path update planned for Q3 2023



[1] *Herpers et al, Nature Cancer, 3, 418–36, 2022*
[2] *Cohen, et al. AACR 2023*

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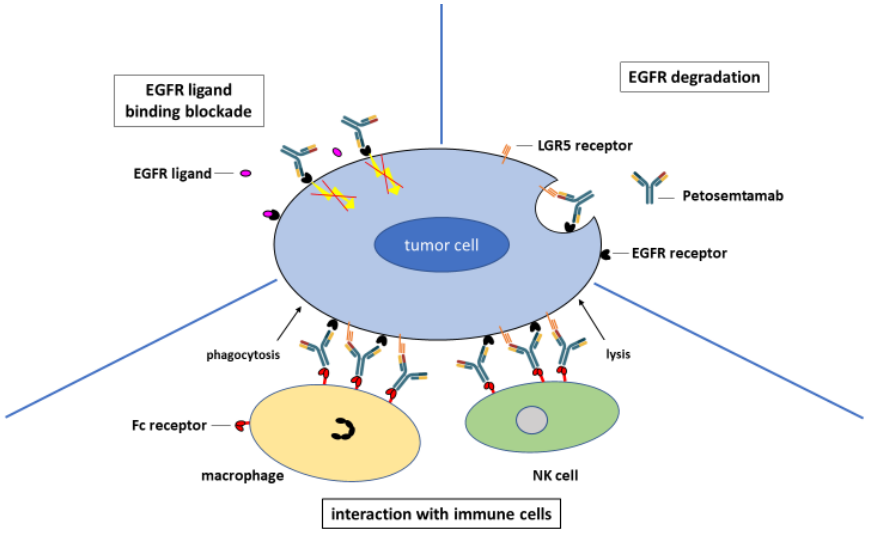
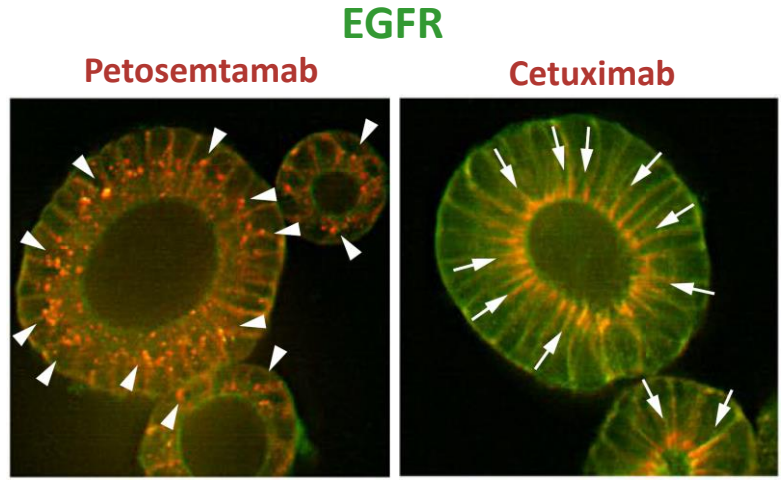
Petosemtamab — Unique Mechanism of Action

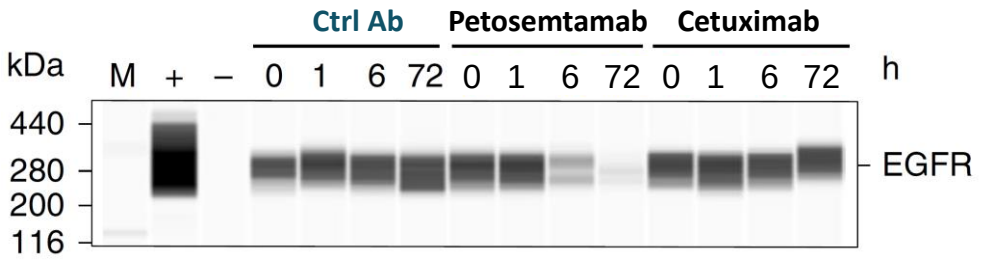
Mechanism of Action[1]



- Blocks EGFR ligand and inhibits signaling
- Degrades EGFR (via LGR5/E3 ligase)
- Facilitates interaction with immune cells (ADCC and ADCP 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 Study

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

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%)

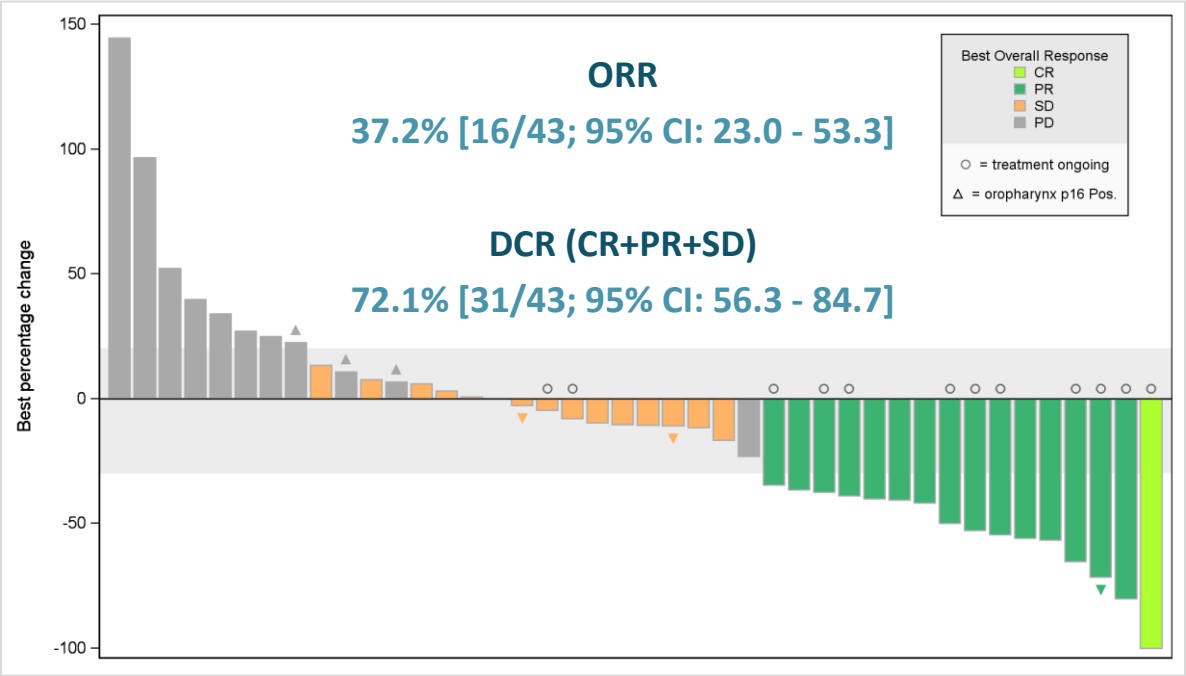
Patient Disposition	N=49
Petosemtamab treatment	
Treatment continuing	12 (25%)
Treatment discontinuation	37 (75%)
▪ Disease progression	31 (63%)
▪ Related adverse event[1]	4 (8%)
▪ Other[2]	2 (4%)
Petosemtamab exposure duration, months	
▪ Median (range)	4.1 (0.5 - 20.8)

[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 Clinical Efficacy in HNSCC

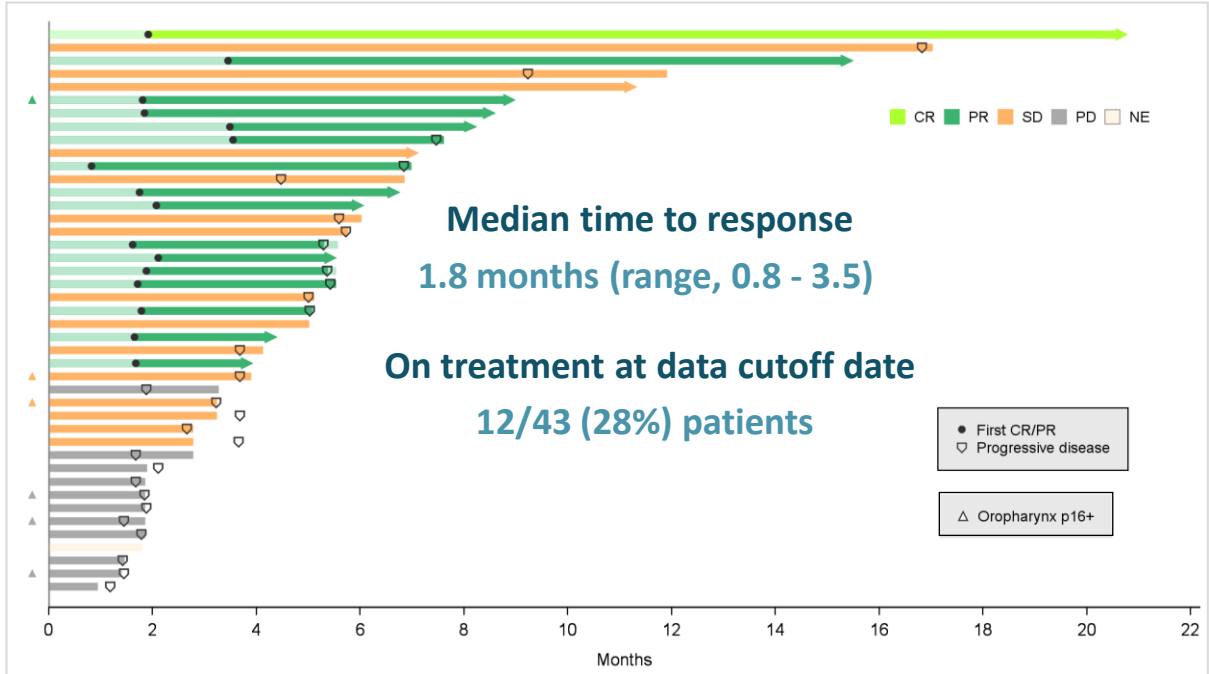
Overall response rate 37%

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

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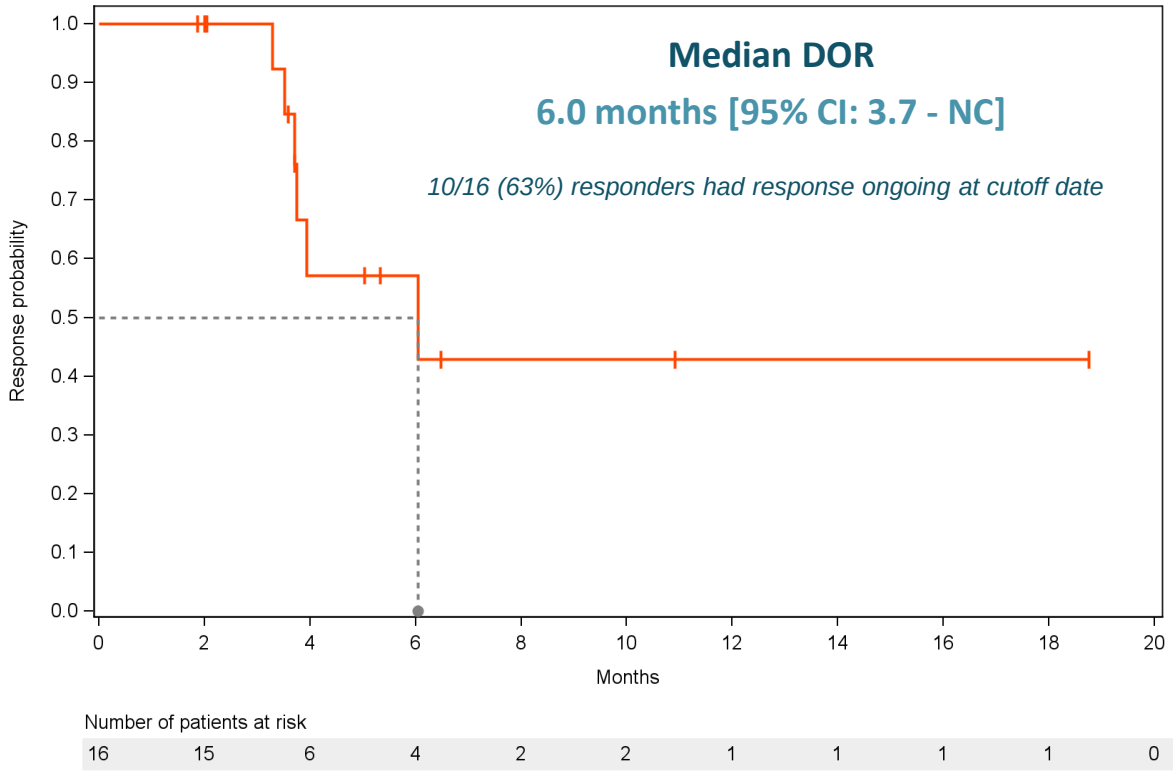
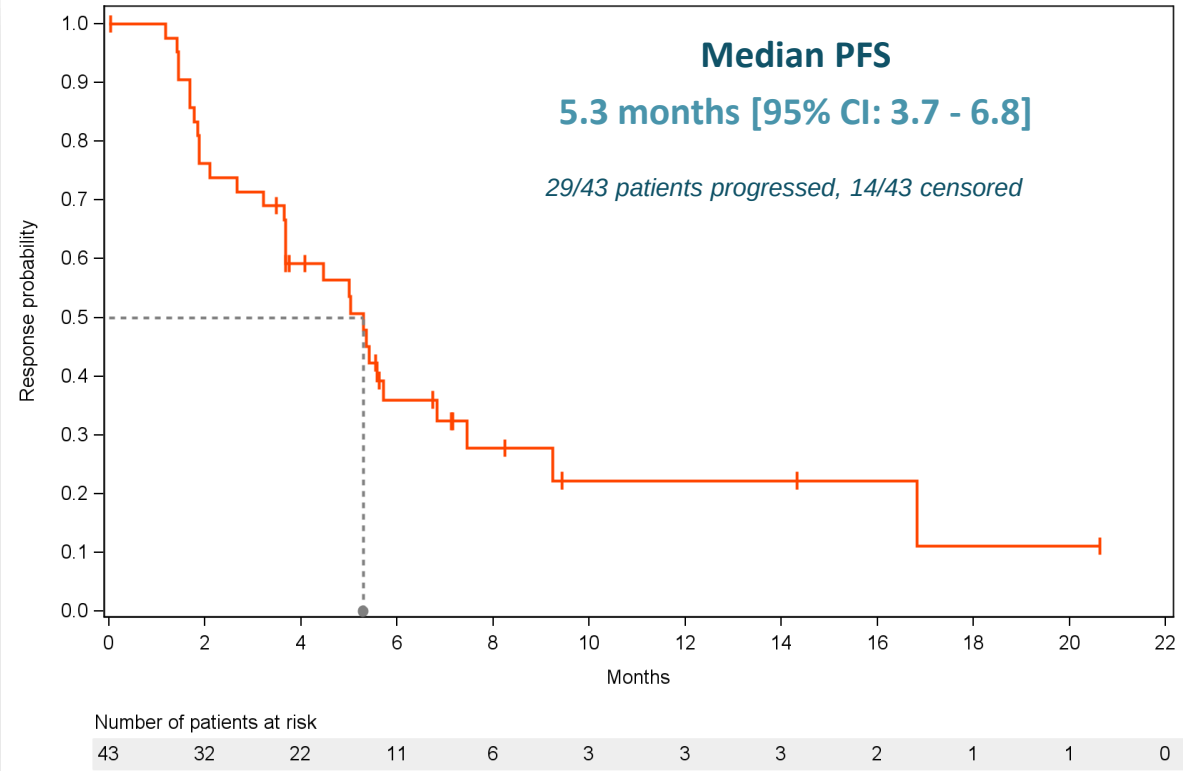
Petosemtamab Antitumor Activity in HNSCC

DOR, PFS (RECIST 1.1, per Investigator), and OS





Median OS

11.5 months [95% CI: 7.2 - 20.6]

29/49 patients still alive at data cutoff date

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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 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 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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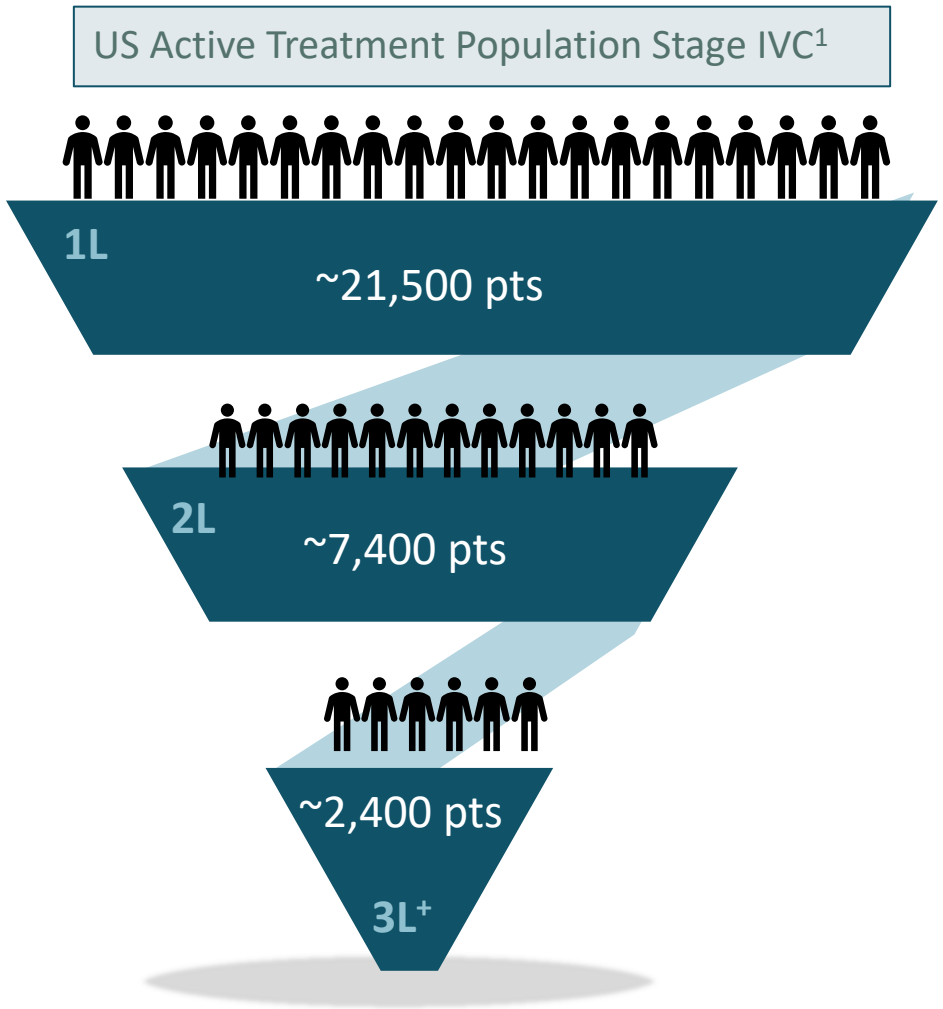
Head & Neck Cancer (HNSCC)

Petosemtamab has the potential to become a new SoC



Unmet Need

- Annual US Incidence ~67,000 with >15,000 deaths each year for all stages[2]
- 5 Year Survival for Stage IVC patients is ~13%
- 2L+ (post-IO) agents with improved efficacy & tolerability needed

Treatment Paradigm Trends - US

- **1L**: Pembrolizumab-based regimens are preferred frontline
- **2L**: Cetuximab-based regimens are often utilized, with some usage of pembrolizumab or nivolumab
- **3L**: Highly fragmented, many patients still receive cetuximab-based therapies

Opportunity in Head & Neck Cancer

- Combo with PD-1 inhibitor underway
- Potential for 1L and/or 2L+ HNSCC

[1] Data Source: Kantar CancerMPact Epidemiology data Pulled Feb. 8, 2023. Estimates rounded. Statistics from CancerMPact® Patient Metrics U.S.

[2] Cancer.Net data Pulled April 7, 2023

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Petosemtamab

Potential First in Class bispecific targeting EGFR and LGR5

Meaningful Clinical Activity observed in previously treated HNSCC[1]

- ORR 37.2% (n=43; 95% CI: 23-53.3%)
- Median DOR 6 months (95% CI: 3.7-NC)
- Antitumor activity independent of biomarkers

Generally, well tolerated & manageable safety profile[1]

- No treatment-related grade 5 AEs
- 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

Multiple possible development paths.
Plan to conduct a randomized registrational trial in front-line or 2L+ HNSCC with potential to support accelerated approval using an overall response rate endpoint.

[1] *Cohen, et al., AACR 2023*

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Potential first in class and best in class for NRG1 fusion (NRG1+) cancer

Zenocutuzumab

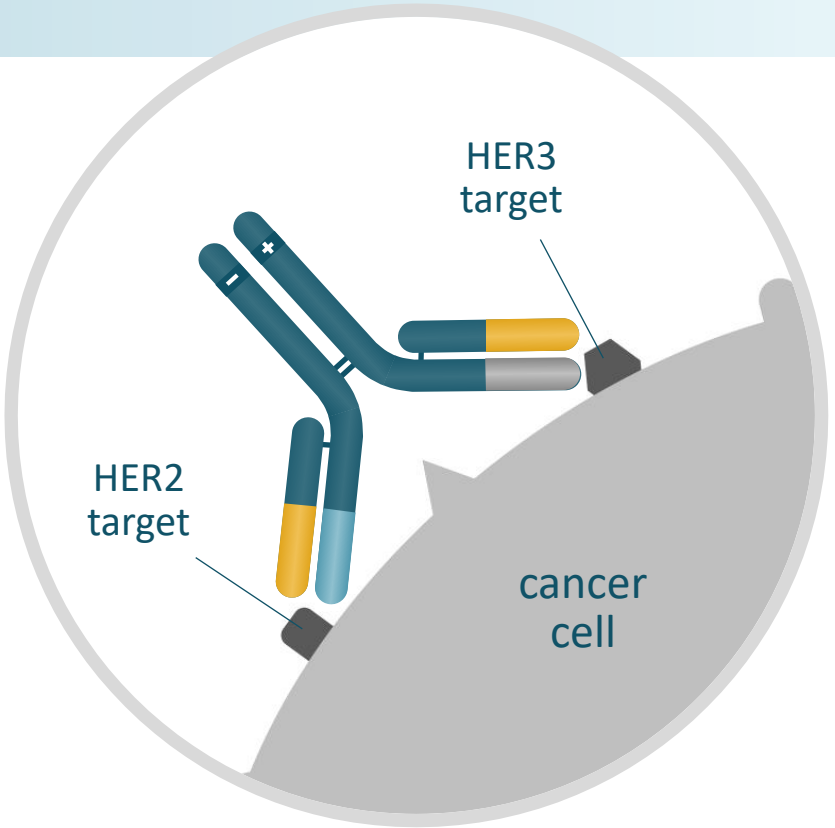
MCLA-128 or Zeno
HER2 x HER3 bispecific

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 and fast track designation by FDA for pancreatic cancer, and NRG1+ cancer post standard of care, respectively
- Enrollment in eNRGy trial continues to support potential BLA[5] filings in NRG1+ NSCLC[5] and/or PDAC[5], with potential subsequent tissue agnostic filing
- Additional clinical trials ongoing in CRPC[5] with ADT[5] and in NRG1+ NSCLC with afatinib



[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]BLA, Biologics License Application; NSCLC, non-small cell lung cancer; PDAC, pancreatic ductal adenocarcinoma; CRPC, castration-resistant prostate cancer and ADT, androgen deprivation therapy

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Zeno in NRG1+ Cancer: Global Phase 1/2 Clinical Trial

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

PDAC
NSCLC
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-old
- 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
Overall response rate (ORR) using RECIST v1.1 per investigator

Secondary endpoints
Duration of response, ORR per central review, safety, pharmacokinetics, antidrug antibodies

Primary analysis population
≥ 1 dose of Zeno, opportunity for ≥ 6 months follow-up at cutoff, and met criteria for primary efficacy population

Enrollment and Analysis

Data cutoff date
12-Apr-2022

Enrollment
110 patients
64 sites
17 countries

Primary analysis population
83 patients

27 patients excluded[1]:

- 21 patients < 6 months follow-up[2]
- 2 patients baseline scan > 5 weeks before first dose
- 2 patients with other genetic drivers (*KRAS*)
- 2 patients with prior anti-HER3 inhibitor[2]
- 1 patient with ECOG PS 3

Schram et al., ASCO 2022, efficacy data cutoff April 12, 2022 and safety data cutoff January 12, 2022

1. Per protocol/SAP
2. One patient had 2 reasons for exclusion

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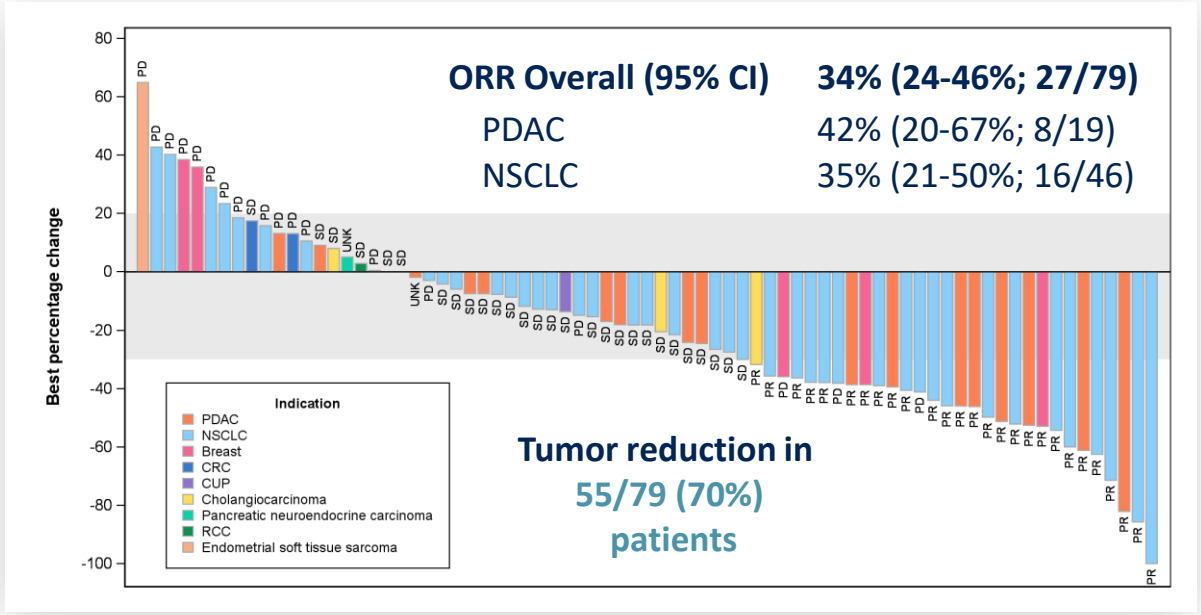
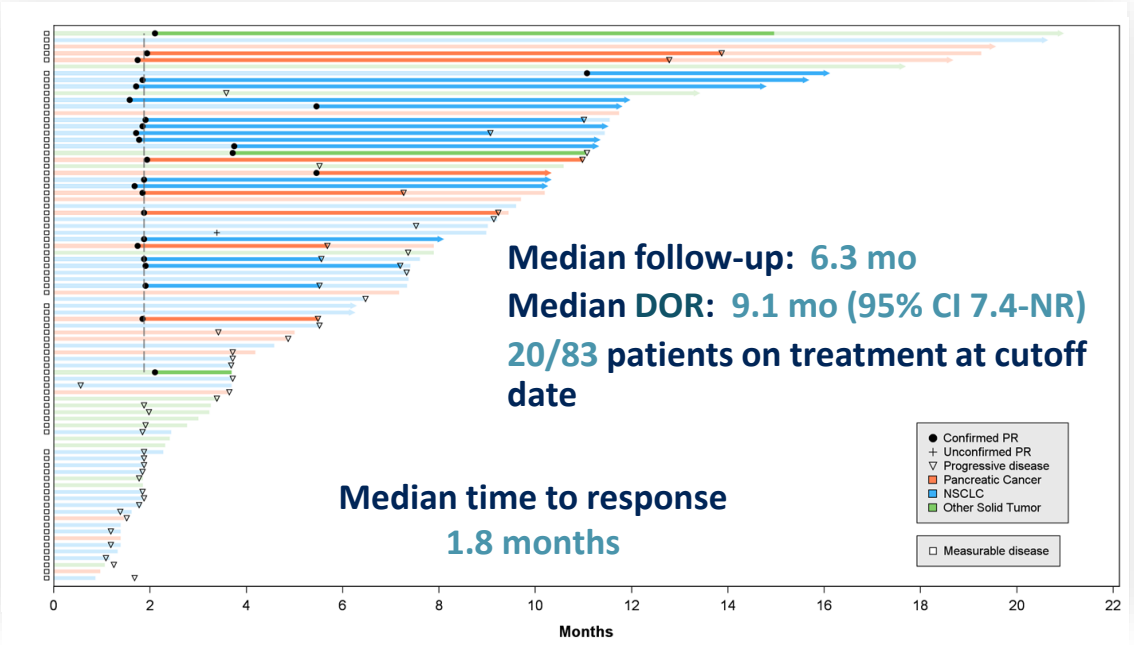
Robust Clinical Efficacy in NRG1+ Cancer

Overall response rate 34%; Median DOR > 9 months



Note: The waterfall plot shows data for 75 of 79 patients. Change in tumor size could not be measured for 4 patients, 3 due to absence of post baseline assessment (early progression) and one due to incomplete assessment. NSCLC, Non-Small Cell Lung Cancer; PDAC, Pancreatic Ductal Adenocarcinoma



Arrows indicate treatment was ongoing at the cutoff date

Schram et al., ASCO 2022, efficacy data cutoff April 12, 2022 and safety data cutoff January 12, 2022

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Zeno: Continued Progress in NRG1+ Cancer and Beyond

Potential First & Best in Class for NRG1+ Cancer

Meaningful, durable response rate

- ORR 34% (95% CI: 24-46%; n=79)
- Median DOR 9.1 months (95% CI: 7.4-NR)
- Antitumor activity observed across multiple tumor types

Well tolerated safety profile

- Most adverse events were low grade
- Very low rate of discontinuations due to toxicity

Broad Zeno Clinical Development Program

Registration-directed program in NRG1+ cancer

- Enrollment continues; as of year-end 2022 more than 150 patients treated in the eNRGy trial and EAP
- Initial tumor-specific approach planned in NRG1+ NSCLC and/or PDAC with potential tissue agnostic BLA to follow
- In NRG1+ NSCLC, combination therapy with afatinib currently recruiting

Beyond NRG1+ cancer

- Castration-resistant prostate cancer cohort with ADT ongoing
- Additional indications being considered

NRG1 Fusions More Common in Specific Types of Lung and Pancreatic Cancer

	Overall	Enrichment
	Non-Small Cell Lung Cancer (0.3%-1.7%)[1,2]	**IMA** (27%-31%)[3] (Invasive mucinous lung adenocarcinoma)
	Pancreatic cancer (0.5%-1.8%)[2,4]	***KRAS* wild-type** (up to 6%)[5] pancreatic cancer
	Other (<1%, eg, breast, cholangiocarcinoma, colorectal cancers)[2]	

NGS Testing Rates[6]

Lung Cancer: 59%

- **20 labs** cover ~80% of market
- **~ 36%** includes NRG1 fusion testing (n=12)

Pancreatic Cancer: 37%

- **20 labs** cover ~87% of market
- **~47%** includes NRG1 fusion testing (n=12)

[1] Drilon A et al. Cancer Discov. 2018;8(6):686-695. [2] Jonna S et al. Clin Cancer Res. 2019;25(16):4966-49723. [3] Laskin J et al. Ann Oncol. 2020;31(12):1693-1703. [4] Knepper TC et al. J Clin Oncol. 2022;40(16 suppl):4155. [5] Jones MR et al. Clin Cancer Res. 2019;25(15):4674-4681 [6] Data from Diaceutics Data Repository: 1Q2022: Testing rate dashboard (Aug. 2022 assessment) & 3Q2022 Data: Testing coverage from Diaceutics Lab mapping (Nov. 2022 assessment)"

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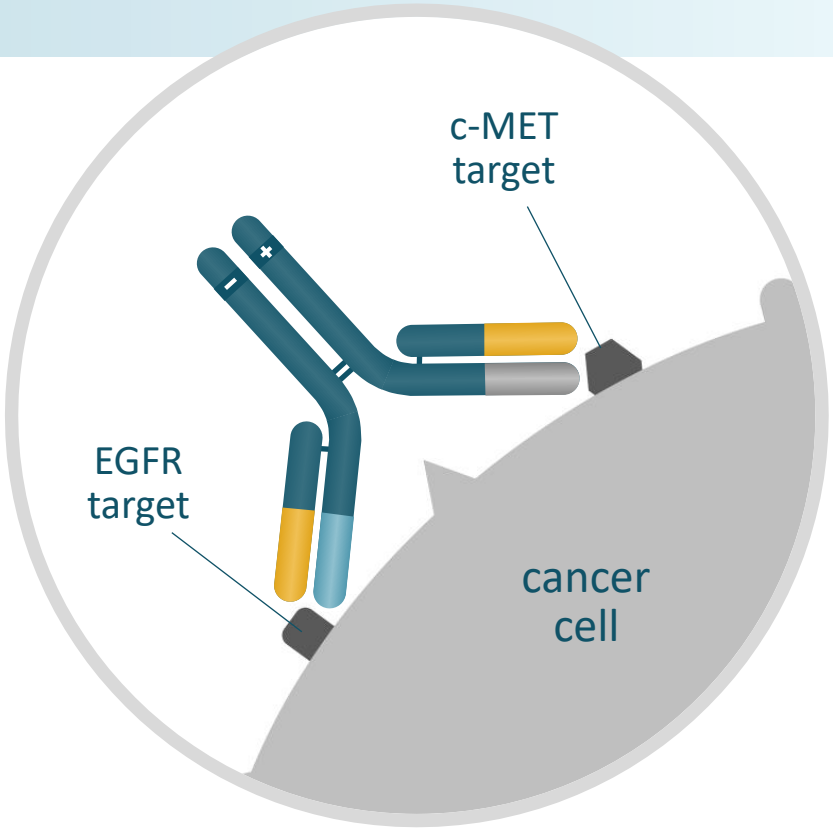
Designed to target lung cancer and other solid tumors expressing EGFR and c-MET

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 high-affinity (FcγRIII 158V) or low-affinity (Fcγ RIII 158F) variant effector cells[1]
- Significant opportunity in lung cancer and other solid tumors
- Phase 1/2 trial ongoing; 2H22 clinical update provided at the EORTC-NCI-AACR 2022
- Expansion cohorts ongoing, including in combination with osimertinib, a third generation EGFR TKI
- Initial clinical data update from the expansion cohorts and further clinical development strategy update planned for 2H23



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

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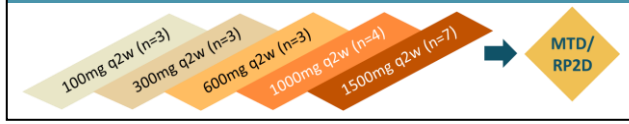
Dose Escalation Phase of MCLA-129 in NSCLC and Other Solid Tumors*

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

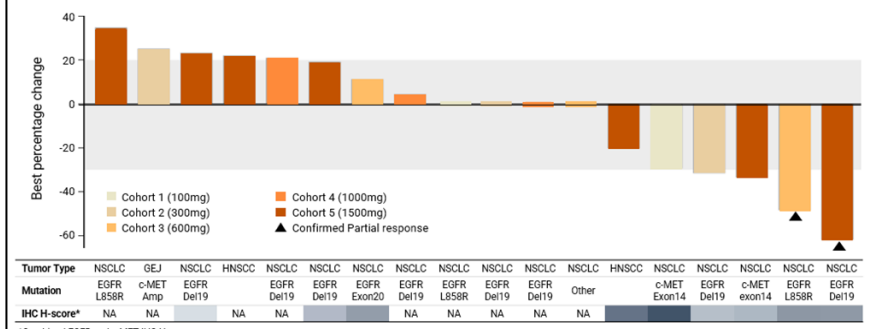
Cohort A: NSCLC with EGFR exon20 insertion
Cohort B: NSCLC with c-MET exon14 skipping
Cohort C: HNSCC
Cohort D + 3rd gen EGFR TKI: NSCLC 1L (EGFR sensitizing mutations)
Cohort E + 3rd gen EGRF TKI: NSCLC post-Osimertinib

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*

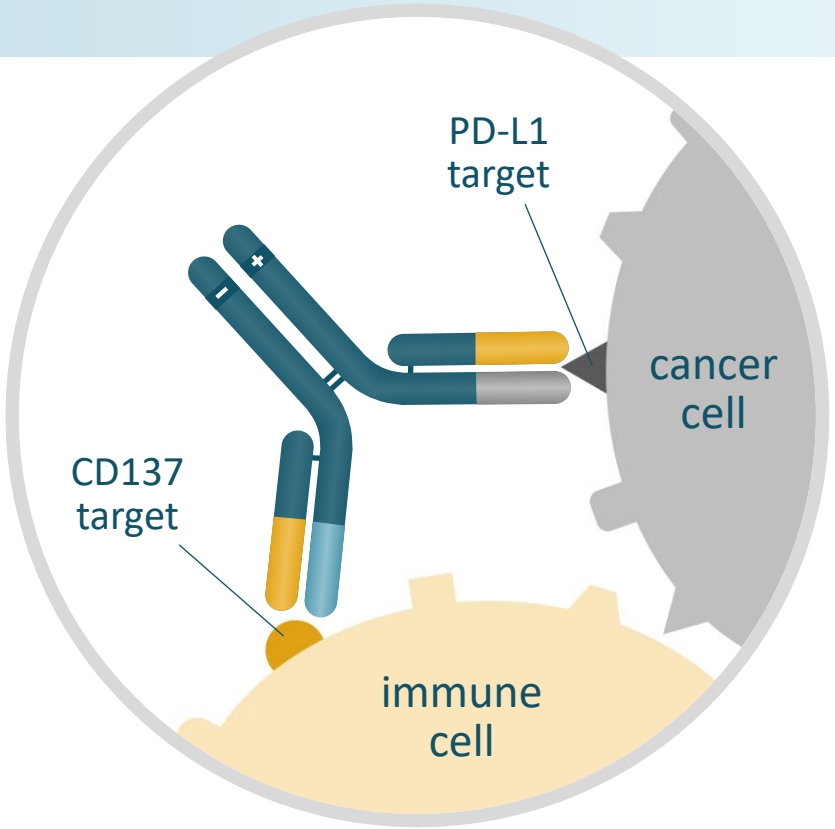
Merus

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
- Global phase 1 trial ongoing, including in combination with a PD1 inhibitor
- Clinical update presented at ESMO Immuno-Oncology Congress 2021



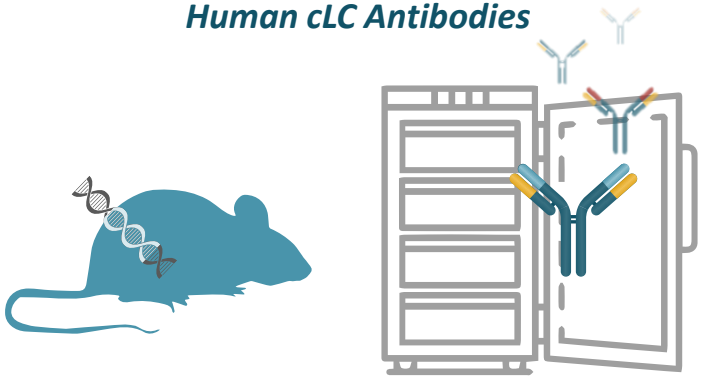
[1] *Prenen, et al., ESMO IO 2021*
[2] *Geuijen, et al., AACR 2019*

Merus

Our Platform – Unique Capabilities in Multispecific Antibodies

Generate

Human cLC Antibodies



Patented Mouse Technology

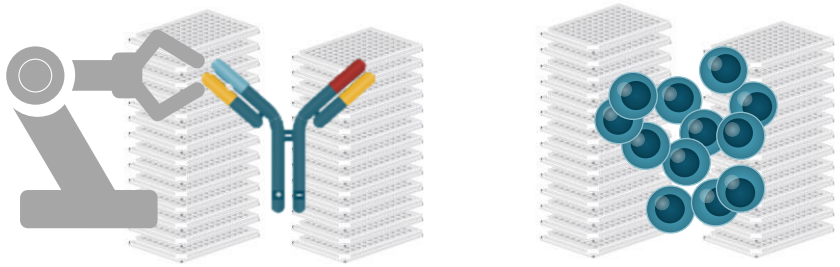
"Merus Mouse" (MeMo®) to generate diverse, high quality common light chain (cLC) antibody panels

Established Inventory

Diverse panels of cLC antibodies against numerous targets

Evaluate

Thousands of Multispecific Abs



Multiclonics® Libraries

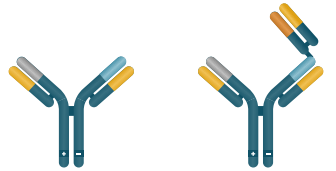
Robotics generate thousands of Multiclonics® by combining cLC antibody panels and our patented "DEKK" IgG heterodimerization technology

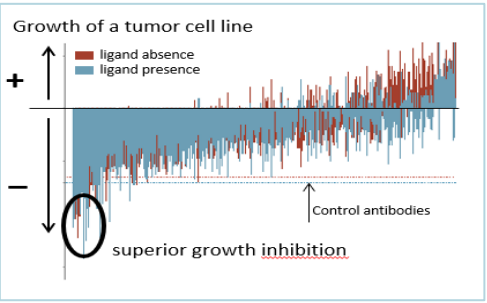
Unbiased Screening

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 Collaborations

Strategic relationships expand pipeline potential and clinical reach

Global collaboration of up to 10 Biclonics® programs

$200M[1] at signing and research funding, option to co-fund development of two programs in return for 50/50 US profit split

Collaboration to develop up to 3 T-cell engaging Biclonics® programs

$60M[1] at signing and research funding, milestones and royalties

MCLA-129, EGFR x c-MET collaboration

Betta has rights for China; Merus retains global rights ex-China, phase 1/2 trials ongoing

Biclonics® Licensing Agreement for a Biclonics® CD3 bispecific antibody.

Phase 1 trial in Japan for ONO-4685, a PD-1 x CD3 bispecific antibody

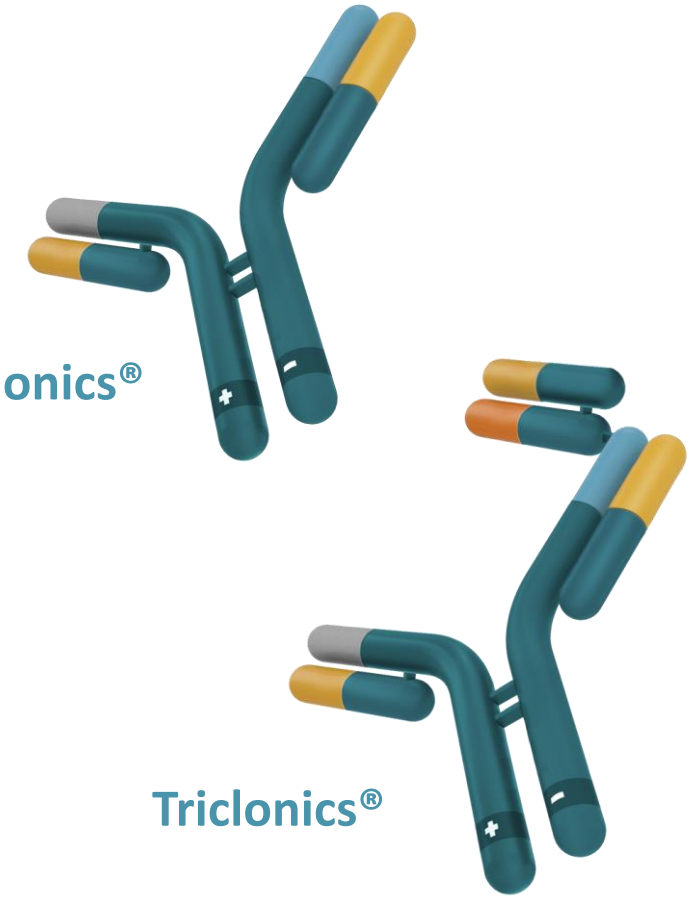
Patient identification agreements

Multiple agreements with top-tier diagnostic companies and industry and academic collaborators

[1] Combination of upfront license payment, and share purchase at a premium (Incyte, Merus collaboration agreement of 120m USD upfront and 80m USD equity investment; Lilly, Merus collaboration agreement of 40m upfront and 20m USD equity investment)

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

- *Stable format with predictable behavior; production similar to monoclonal antibody*
- *Allows for 3 specificities without the need to engineer each individual Fab*
- *Leverages Merus' extensive library of established antibody panels against ~50 established cancer targets*

Robust IP portfolio of patents covering the platform technology, including

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

Merus

Merus Potential Milestones 2023

Zenocutuzumab in NRG1+ cancer & CRPC (Zeno, MCLA-128)

- *Potential registrational path and timeline* in NRG1+ cancer (planned 1H23)
- *Update clinical data* in NRG1+ cancer (planned 2023)
- *Initial clinical data* in combination with an ADT in CRPC (planned 2H23)

Petosemtamab in Head and Neck & other cancers (MCLA-158)

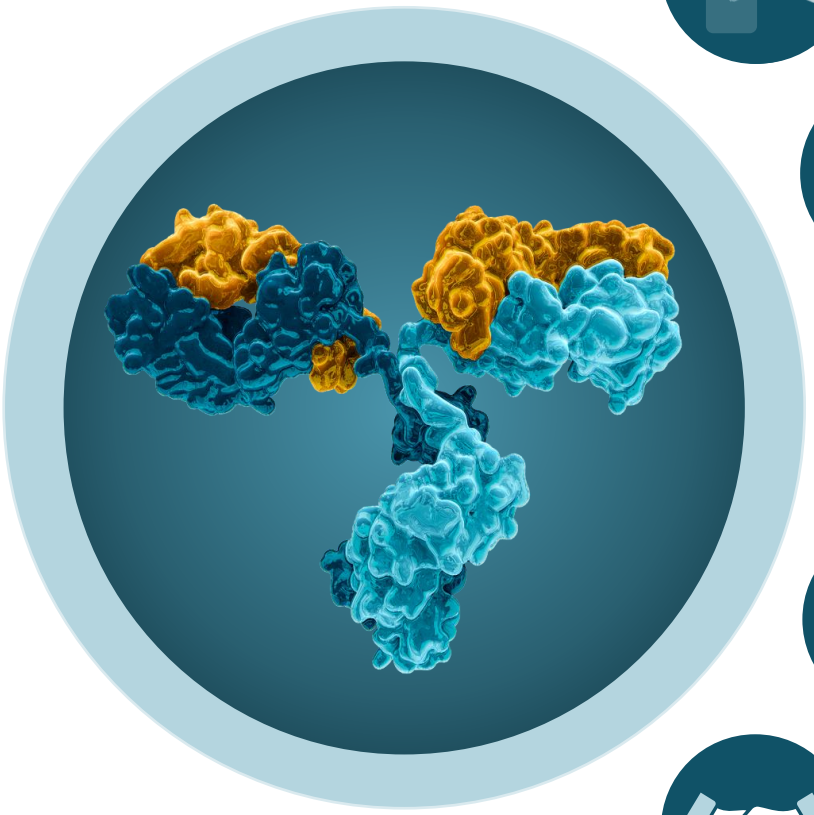
- ✓ *Update provided clinical data and regulatory path* in previously treated HNSCC
- ✓ *Initial clinical data provided* in previously treated gastric/esophageal cancer
- *Update on path to potential registration* in HNSCC (planned Q3 2023)

MCLA-129 in NSCLC & other cancers

- *Initial clinical data* update from the expansion cohorts (planned 2H23)
- *Update clinical development strategy* (planned 2H23)

Merus

Merus Overview



Oncology-focused Company Developing Multispecific Antibody Therapies

Bispecific and trispecific cancer therapeutic candidates in the human IgG format

Leading Multispecific Antibody (Multiclonics®) Platforms

Common light chain format 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 monotherapy and with pembrolizumab in head and neck cancer (HNSCC); Registration-directed trial of **Zeno** in NRG1 fusion (NRG1+) cancer and with androgen deprivation therapy (ADT) in prostate cancer (CRPC); **MCLA-129** in lung and other solid tumors

Near-Term Planned Trial Updates and Strong Cash Position into 2026[1]

Petosemtamab potential registrational path update planned in Q3 2023; Zeno potential regulatory path and timing update planned in 1H23, clinical update on NRG1+ cancer at a major medical conference in 2023, Zeno in CRPC in 2H23; MCLA-129 in solid tumors in 2H23

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 May 23, 2023 8-K noting our belief that our cash, cash equivalents and marketable securities, will fund our operations into second half 2025

Merus

Merus

closing in on cancer