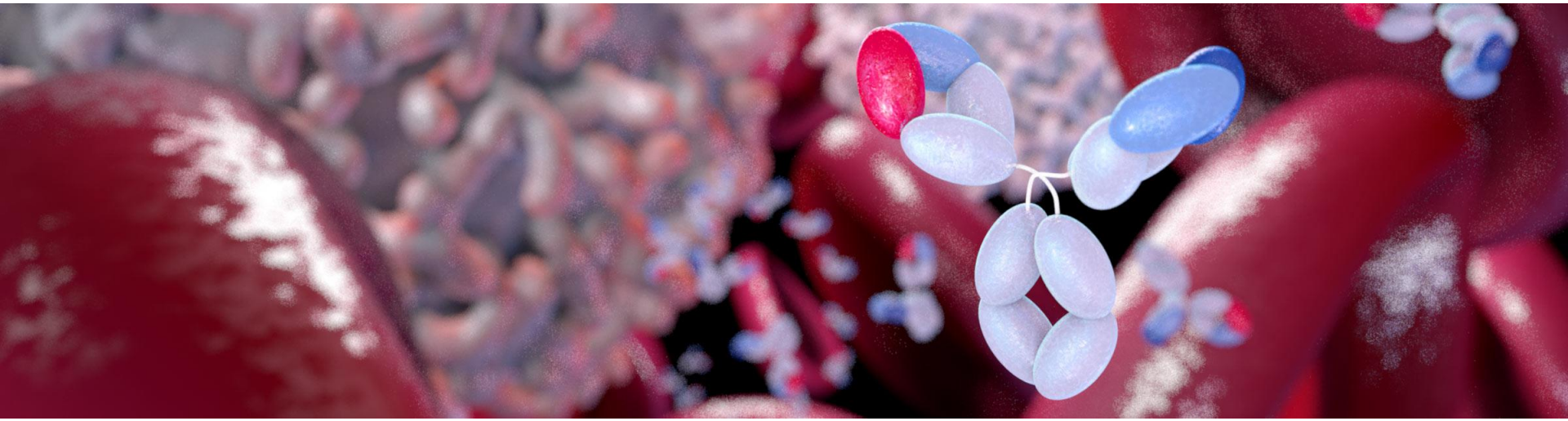
Merus



Battling Cancer with Bispecific Antibodies

Mid-Year Update & Q117 Financial Review

July 11, 2017

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® platform can have on cancer, our product candidates' potential to treat certain types of tumors, the timing of regulatory filings and the timing and anticipated results from our clinical trials. 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 bispecific antibody candidates; potential delays in regulatory approval, 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® 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 immunotherapies; 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 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; and we may lose our foreign private issuer status and incur significant expenses as a result.

These and other important factors discussed under the caption "Risk Factors" in our final prospectus filed with the Securities and Exchange Commission, or SEC, on May 20, 2016 relating to our Registration Statement on Form F-1, 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.

COMPANY HIGHLIGHTS

- A clinical-stage company that is developing bispecific antibodies to harness the immune system to more effectively eliminate cancer cells
- Proprietary technology platform and Biclonics® format for the construction of full length IgG human bispecifics
- Biclonics® offer multiple advantages including low immunogenicity and long half life
- Pipeline consists of multiple proprietary clinical and pre-clinical stage candidates and up to 11 bispecific programs that are in co-development with Incyte Corporation (INCY)
- Solid balance sheet with €237 million in cash as of Q117
- Experienced executive team with expertise in immunology, oncology and antibody design

TECHNOLOGY SUITE FOR DIFFERENTIATING PRODUCTS

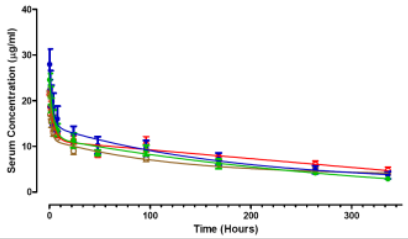
Human antibodies

- MeMo® transgenic mouse for large panels of diverse and high quality common light chain (cLC) human mAbs

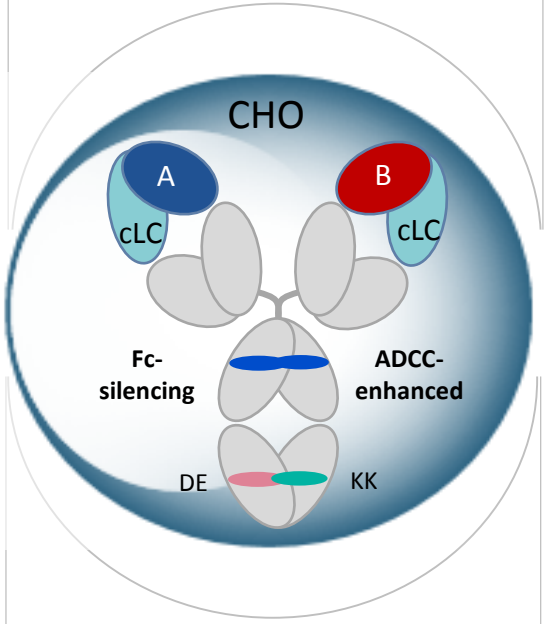
Predictable in vivo behavior

- IgG-like half life
- Low immunogenicity

In humans



Biclonics®: full length IgG human bispecific antibodies with a common light chain

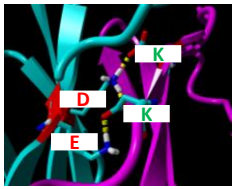


Dependable IgG format with true platform characteristics

Fc region engineering

- CH3: highly pure Biclonics®
- CH2: Fc-silencing
- Enhanced ADCC

DE/KK

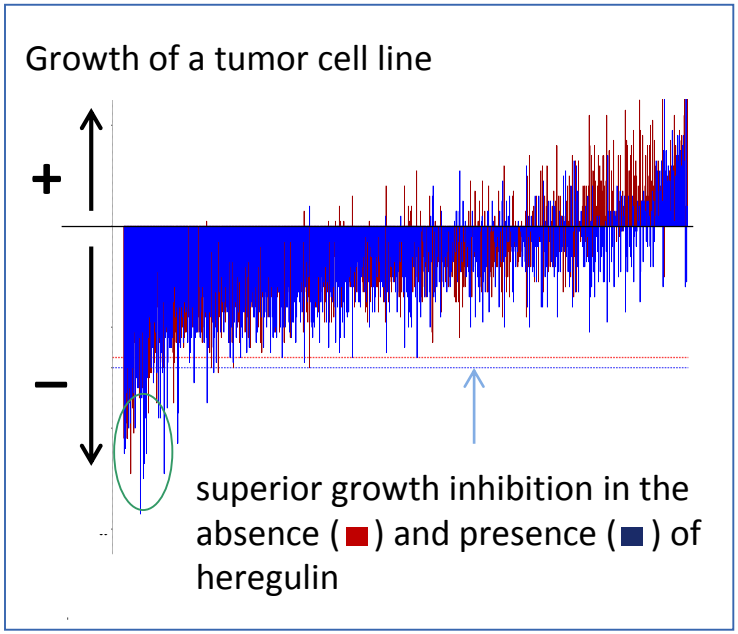


Manufacturability

- Stability: > 60 passages
- Yield: > 1 - 2.5 g/L
- Scalability: 2000 L
- Formulation: standard for IgG

DIFFERENTIATED BICLONICS® LEAD IDENTIFICATION

- Cell-based screening of large collections of different Biclonics® unveils product leads with differentiated modes of action
- Interrogation of the functional activity of 750 different Biclonics® specific for the EGFR x HER 3 target pair – inhibition of growth of a tumor cell line



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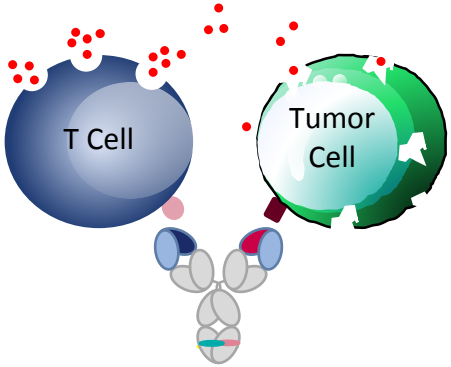
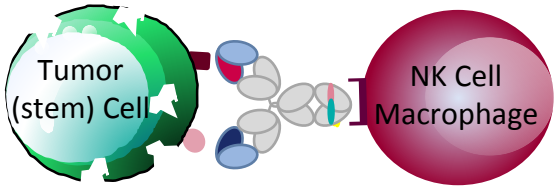
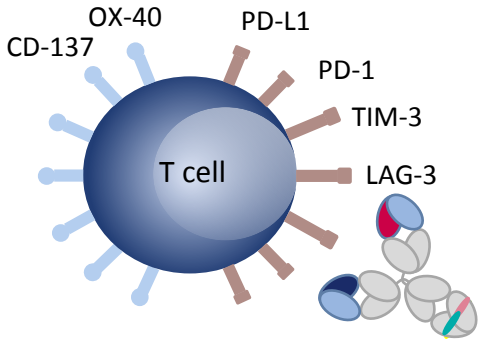
MISSION AND STRATEGY

Develop differentiated cancer therapeutics

based on bispecific antibodies that activate the immune system to kill tumor cells

Engage	Unlock	Activate/Revive
T lymphocytes to kill tumor cells	differentiated target biology	Tumor Killer Cells
		
MCLA-117	MCLA-128 and MCLA-158	Preclinical

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PIPELINE OF BICLONICS® PRODUCT CANDIDATES

Program	Targets	Indication	Pre-Clinical	IND-Enabling Studies	Phase 1/2
MCLA-128	HER2, HER3	Breast cancer			
		Gastric, Ovarian, Endometrial, NSCLC			
MCLA-117	CD3, CLEC12A	AML			
		MDS			
MCLA-158	Lgr5, EGFR	Colorectal cancer			
Incyte MCLA-145 Merus	PD-L1, undisclosed	Various solid tumors			
Immunomodulation and tumor micro-environment (1)	Multiple target combinations	Various solid tumors			
Incyte Merus	≤10 undisclosed target pairs	Multiple disease indications			

(1) Includes MCLA-134: PD-1 x TIM-3

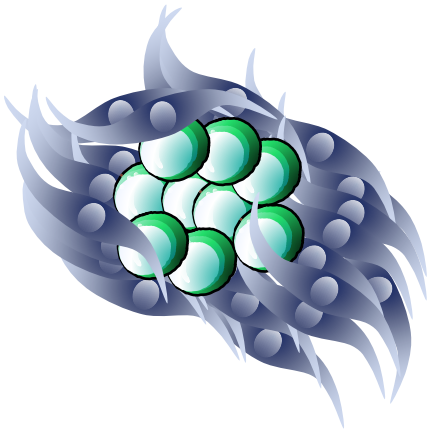
MCLA-128: HER2 X HER3 BICLONICS®

ANDRES SIRULNIK, MD., PhD., EVP, CMO

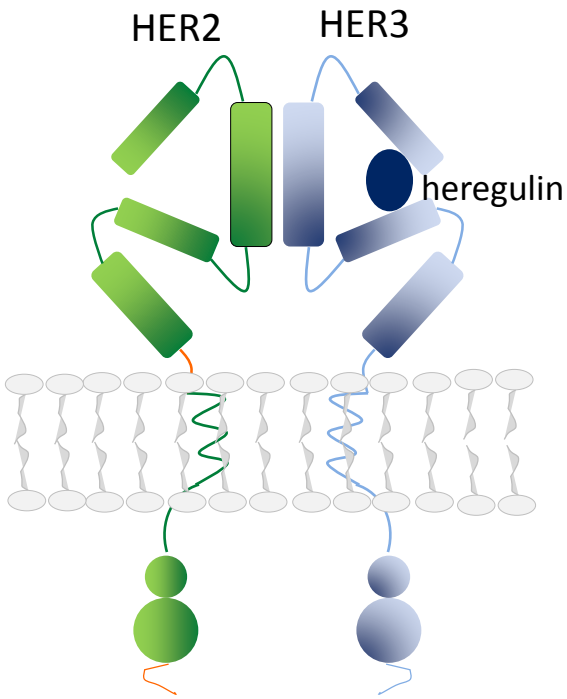
TARGETING THE HER3 PATHWAY

- The HER2:HER3 dimer is central to:
  - tumor cell proliferation
  - escape to HER2 and EGFR-targeted therapies

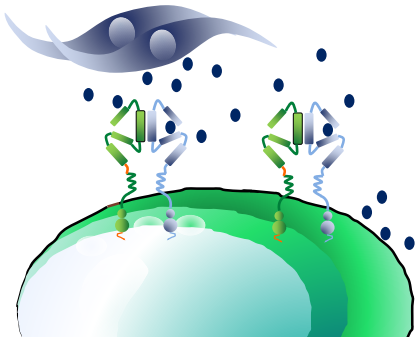
Potent oncogenic signaling unit



Primary tumor growth



Escape/resistance to HER2 and EGFR-targeted therapies



Heregulin overexpression

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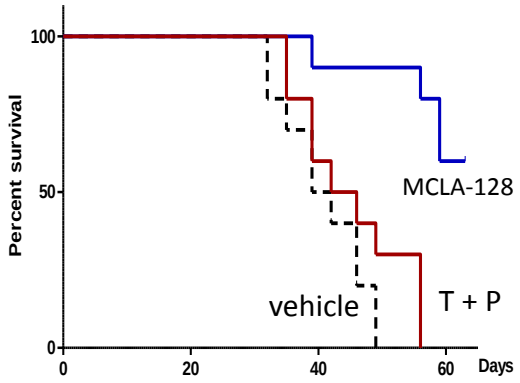
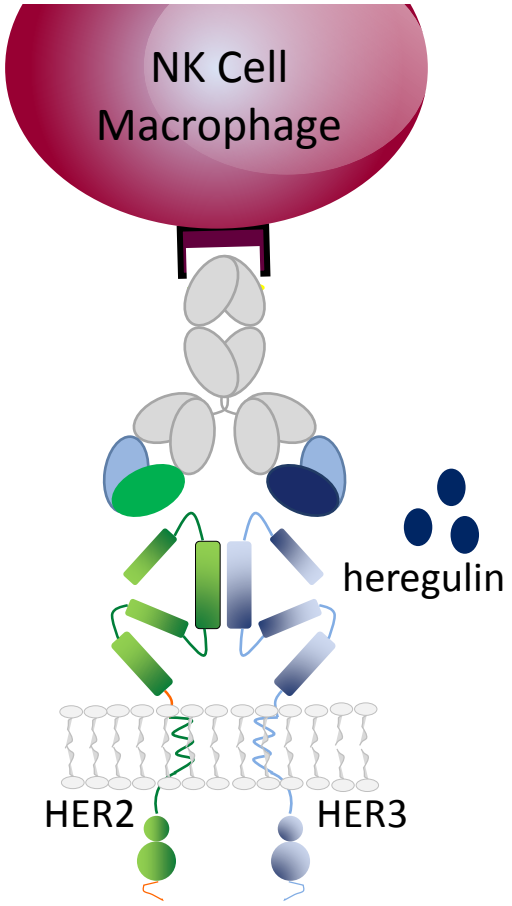
MCLA-128 - UNIQUE MECHANISM OF ACTION

- **Enhanced ADCC** for efficient recruitment immune killer cells through FcγR
- **Dock** on domain I of HER2, abundantly expressed on tumor cells
- Block heregulin-mediated activation of HER3 signaling under high heregulin pressure

- More effective than Herceptin +Perjeta® in inhibiting the growth of cell lines resistant to HER2-targeted therapies





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MCLA-128: HER2xHER3 BICLONICS®

Positioning	A HER3-targeting bispecific antibody that can be used in combinations with HER-targeting biologics (e.g. Herceptin, Kadcyla®), small molecule drugs and chemotherapy
Disease Indications	Breast, Ovarian/Endometrial and Gastric/Gastric-Esophageal Junction metastatic cancers Other solid tumors including non-small cell lung cancer
Target Patient Population	Breast: • HER2+: in combination with Trastuzumab +/- chemotherapy • ER+: in combination with endocrine therapy Gastric: HER2+ (amplified) NSCLC: HER2+ (IHC) Ovarian / Endometrial: Unselected • Merus' analysis indicates that the presence of HER2:HER3 heterodimers confers resistance to chemotherapy, independent of HER2 overexpression

SINGLE AGENT MCLA-128 PHASE 1/2 STUDY

ACTIVITY ESTABLISHED IN METASTATIC BREAST CANCER (mBC)

Part 1 **Dose Escalation**	28 patients with solid tumors; all comers Very good safety profile • no dose-limiting toxicities • most drug-related AEs were mild to moderate (G1/G2) Recommended dose: 750 mg flat, IV infusion in 2h, q3ws
Part 2 **Expansion Cohorts**	40 patients enrolled across 5 tumor types: • HER2-amplified: metastatic Breast and Gastric cancer • HER2-non amplified: Ovarian, Endometrial, and NSCLC Ongoing Phase 2 expansion confirms good safety profile Go/No-Go criteria met in mBC: evidence of clinical activity in heavily pre-treated HER2+ mBC patients who have progressed on at least three prior anti-HER2 therapies. • mBC cohort closed to further enrollment • Phase 2 study exploring combinations opening Q3-4 2017

FEATURES OF THE HER2+ mBC PATIENT COHORT

- High burden of disease including visceral involvement
- Heavily pre-treated patients; all progressed to most approved HER2 therapies (all patients received T-DM1)

Patient	Metastatic sites	# prior lines/ # HER2 therapies	# cycles	Best response	Response duration (wks)
1	bone, lung	4/4	14	PR	34.4*
2	bone, lymph nodes	6/3	12	SD	37.0
3	skin, lymph nodes	5/3	11	SD	34.0
4	bone, brain	5/3	8	SD	23.3
5	lung	6/5	7	SD	21.4
6	bone skin	8/3	5	SD	14.9
7	brain, liver, peritoneum	6/2	4	SD	12.0
8	skin	18/4	4	SD	11.7
9	bone, lymph nodes, skin	5/3	2	SD	-
10	lung, lymph nodes, skin	8/2	2	SD	-
11	pleura, lymph nodes, skin	5/3	2	SD	-

1. RECIST response duration calculated until 10 May 2017

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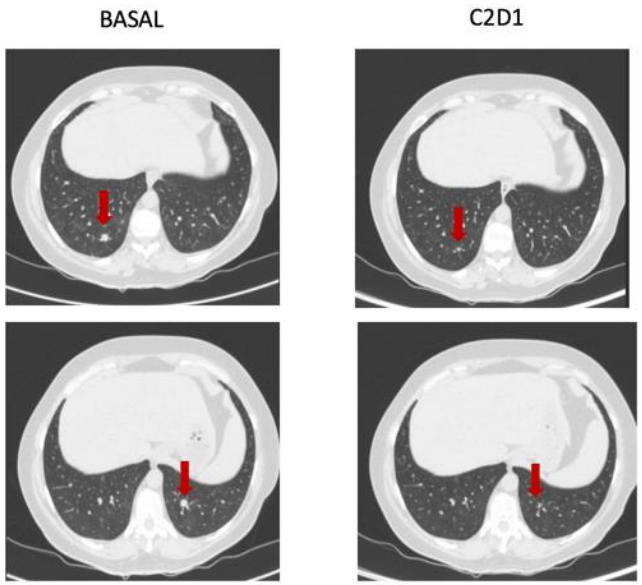
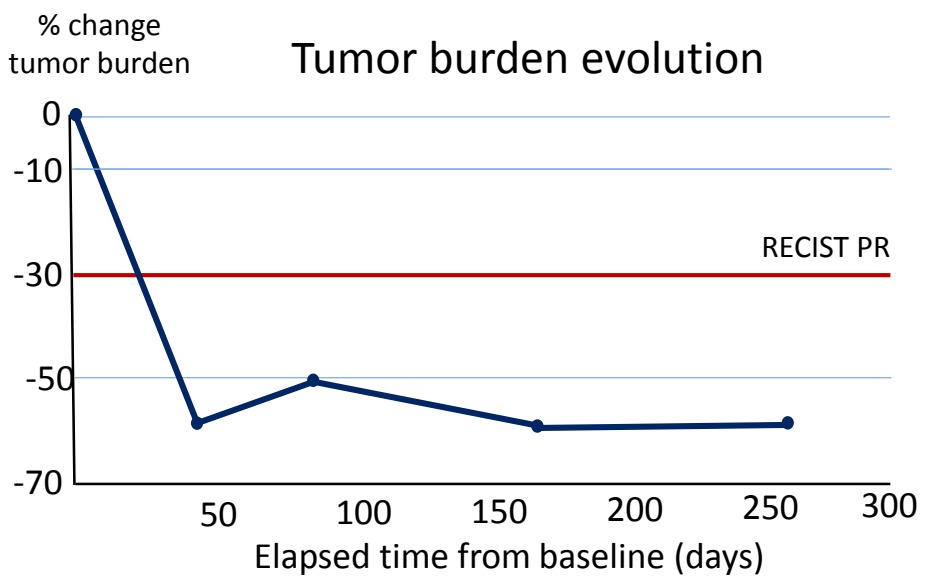
Patient # 1: mBC

LIne	Prior treatments	Duration (months)	Start	End	Comments
1st	Neratinib- Paclitaxel (2Cy)	2	05/'11	07/'11	At end PD
2nd	Trastuzumab-Doxo-CFM → Trastuzumab	13	07/'11	08/'12	At end PD
3rd	Lapatinib - Capecitabine	15	09/'12	10/'14	At end PD
4th	T-DM1	20	10/'14	06/'16	At end PD
5th	MCLA-128	~9	08/'16	On	14 doses received

46 y old patient with mBC
ECOG: 0
Biomarkers: ER-/HER2+ (IHC 3+)
Extend of disease: bone, lung
Diagnosis: May 2011





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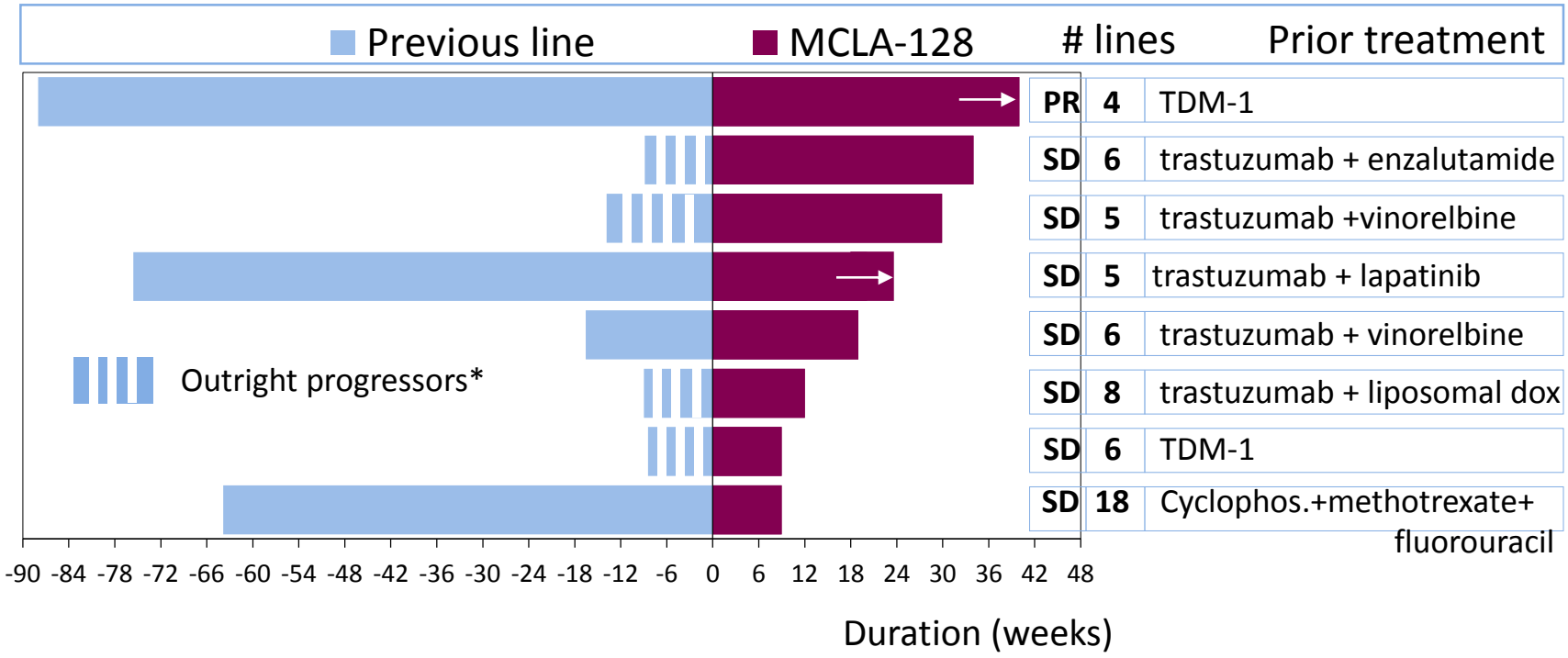
PHASE 2 – INTERIM RESULTS IN mBC

- Comparison of treatment duration with MCLA-128 versus last line of prior therapy in the 8 patients with evidence of anti-tumor activity



* **Outright Progression:** no response to the last line of therapy

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PHASE 2 COMBINATION TRIAL IN mBC – HER2+

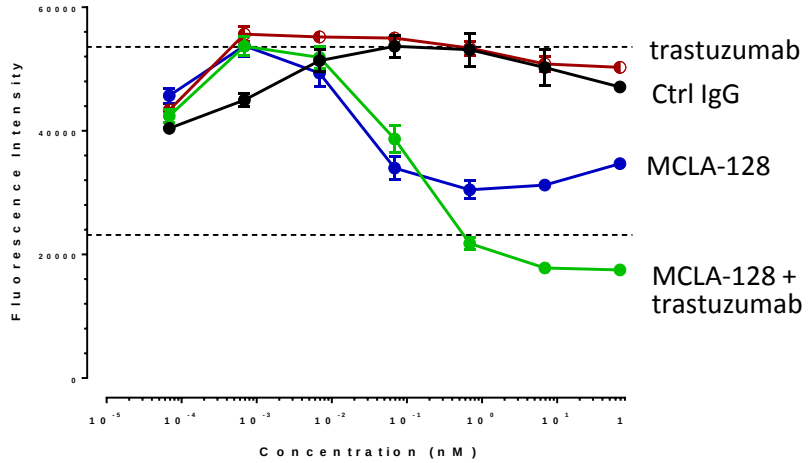
HER2+ mBC failing 2-4 prior HER2 therapies (including T-DM1)
N = ~60

Doublet

MCLA-128
+
Trastuzumab

Triplet

MCLA-128
+
Trastuzumab + Vinorelbine



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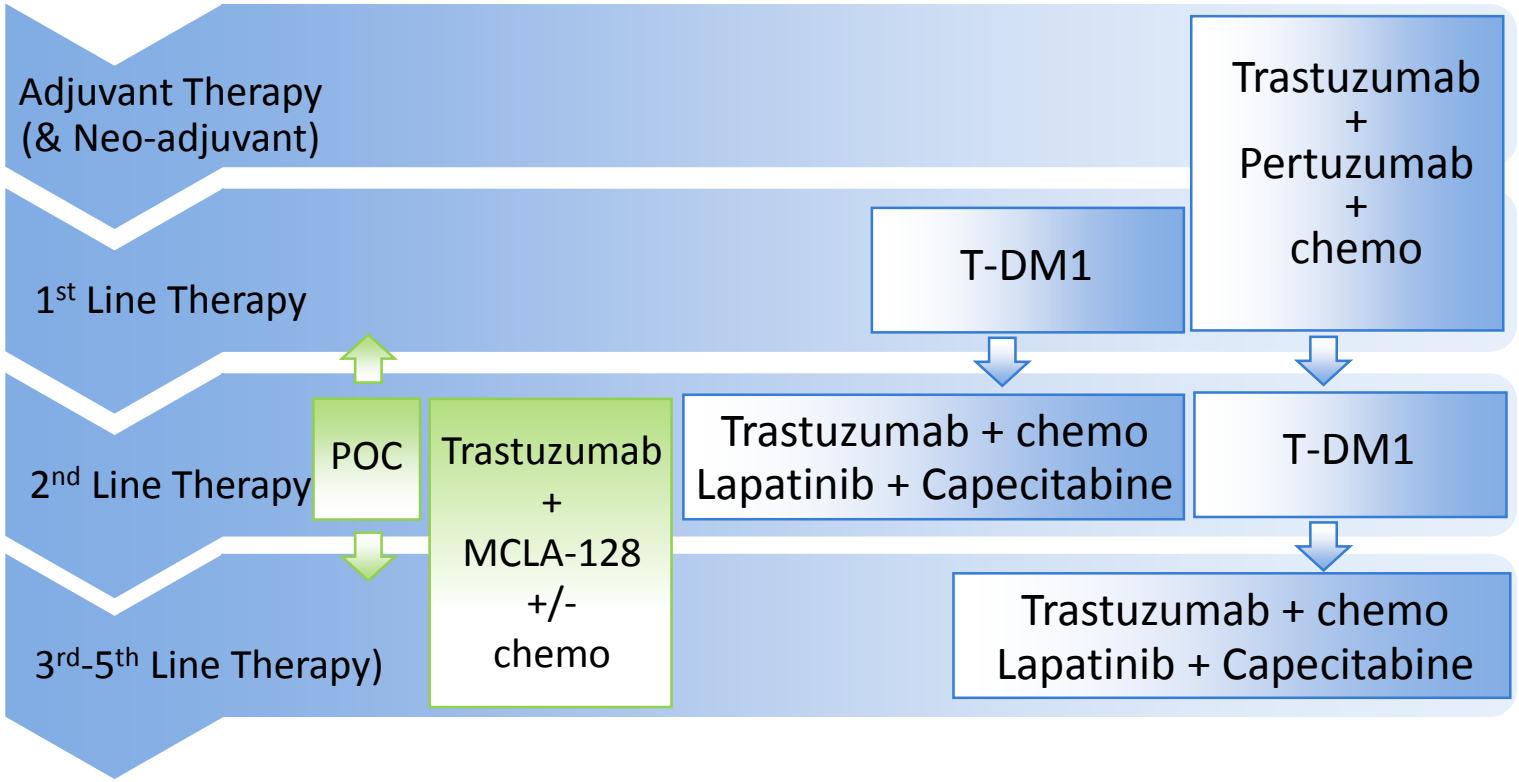
CURRENT TREATMENT PARADIGM IN HER2+ mBC

- Positioning of MCLA-128 in HER2+ (IHC +2/+3 FISH positive) patients, exposed and progressed to Trastuzumab / Peruzumab / T-DM1/chemo



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PHASE 2 COMBINATION TRIAL IN mBC – ER+

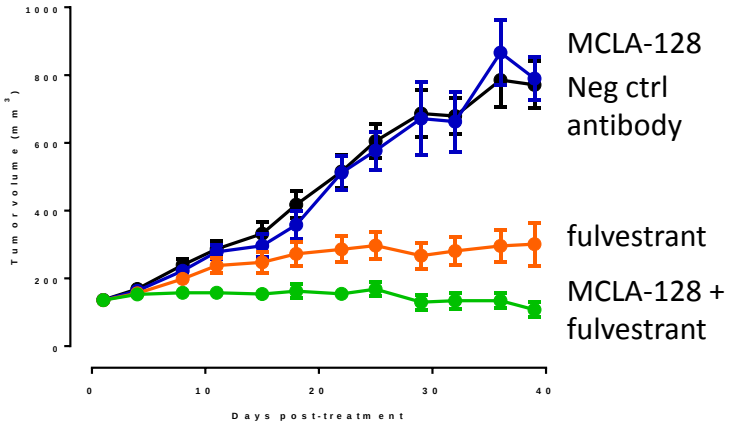
ER+/HER2-low mBC failing ≥1 prior endocrine therapy/ CDK4-6 inhibitor

N = ~60

MCLA-128

+

Endocrine Therapy



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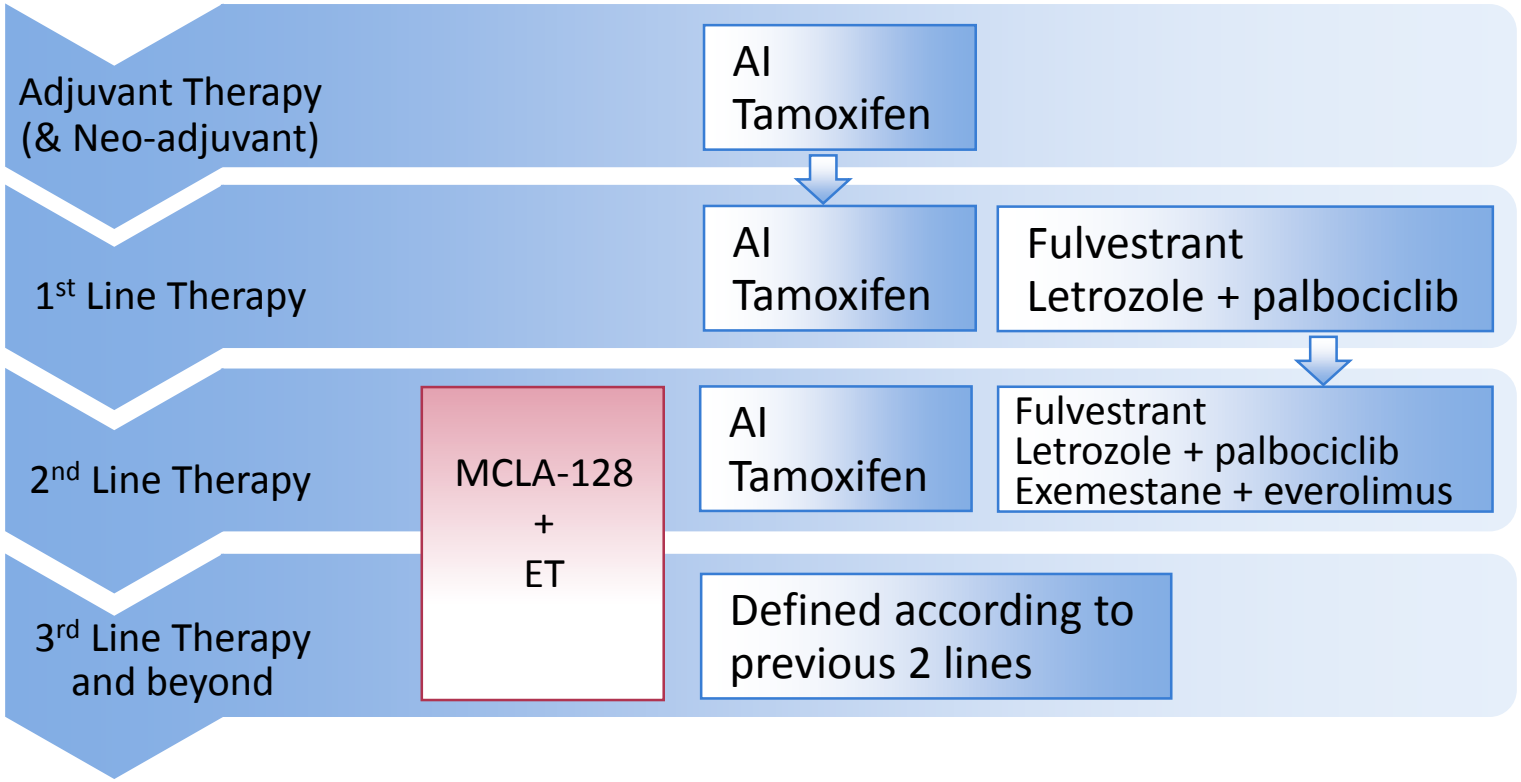
CURRENT TREATMENT PARADIGM IN ER+ mBC

- Positioning of MCLA-128 in ER+/HER2-low (IHC +1 +2 FISH negative) mBC patients, Post-Endocrine Therapy (refractory), Post-Palbociclib



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Q117 Financial Review

JOHN CROWLEY, EVP, CFO

STRONG BALANCE SHEET PROVIDES RUNWAY INTO 2019

- **Cash and cash equivalents of €237 million as of Q1 2017**
  - IPO in May 2016 raised $47 million in net proceeds
  - Incyte collaboration provided $200 million in January 2017
    - Upfront payment of $120 million
    - $80 million from the sale of 3.2 million common shares of Merus to Incyte at $25 per share
  - No debt
  - Cash balance sufficient to fund operations well into 2019

- **Q1 2017 financial highlights**
  - Revenue of €2.3 million
  - R&D expenses of €7.0 million
  - Net loss of €21.3 million euros or €1.15 loss per basic and diluted share
    - Includes a non-cash charge of €10.7 million for the accounting impact of a financial derivative related to the obligation to deliver shares to Incyte in January 2017
  - 19.4 million common shares outstanding as of March 31, 2017

ANTICIPATED MILESTONES IN 2H17

2017	• Initiation of MCLA-128 Phase 2 combination trial in the EU/US of MCLA-128 combination with trastuzumab +/- chemotherapy in HER2+ mBC failing 2-4 prior HER2 therapies (including T-DM1)	**Q4**
	• Initiation of a MCLA-128 Phase 2 combination trial with endocrine therapy in ER+/HER2-low mBC failing ≥1 prior endocrine therapies /CDK4-6 inhibitor	**Q4**
	• Gastric cohort expected to have sufficient patients accrued by the end of 2017 to make decisions on further development based on single agent activity	**Q4**
	• Completion of dose escalation part of ongoing Phase 1 clinical trial of MCLA-117 in AML • Filing of IND for MCLA-117 of ongoing Phase 1 clinical trial • File a CTA for first-in-human clinical trial of MCLA-158 in patients with colorectal cancer	**Q4**

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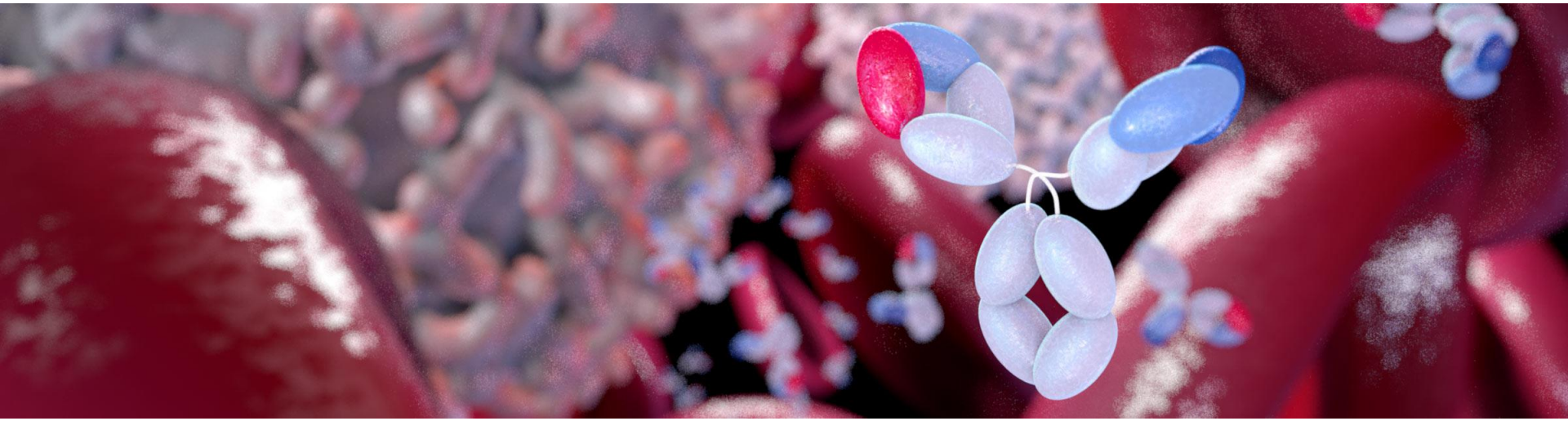

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