TCR Bispecific Molecule TCER® IMA401 Targeting MAGEA4/8

- Phase 1 Dose Escalation Clinical Data Update

September 16, 2024

BARCELONA 2024 ESMO congress

Oral presentation by Martin Wermke at the European Society of Medical Oncology Congress 2024 on September 16, 2024

Data cut-off Jul 23, 2024

Delivering the Power of T cells to Cancer Patients

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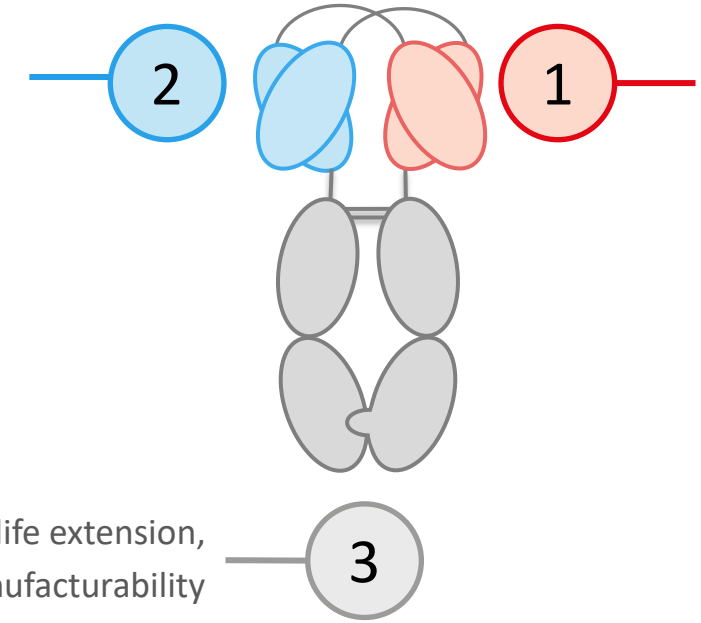
IMA401: Next-Generation Bispecific TCER® Targeting MAGEA4/8

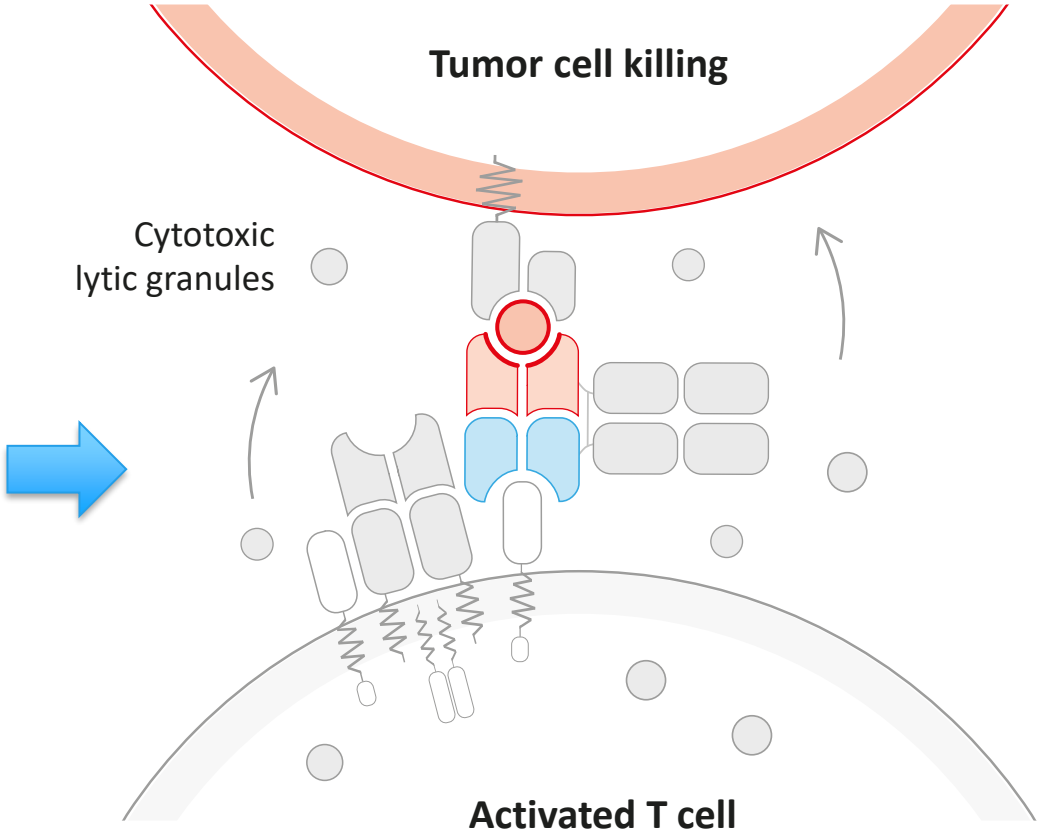
Designed to Efficiently Target Tumor-specific Peptides (pHLA)

Low-affinity T cell recruiter against CD3/TCR



High-affinity TCR domains targeting proprietary **high copy-number** MAGEA4/8-derived HLA-A*02-presented peptide

Fc part for half-life extension, stability and manufacturability



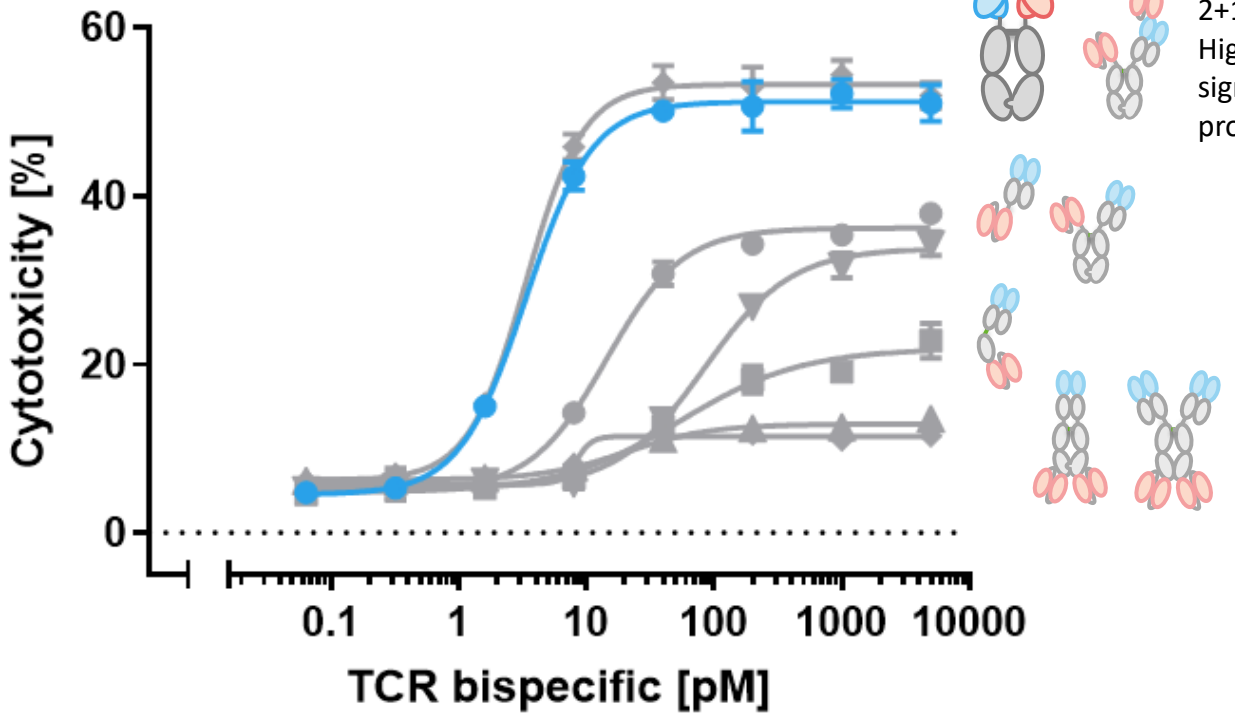
TCER format specifically designed for:

- Superior potency to allow successful pHLA targeting[1]
- Minimized cytokine release in absence of target
- Optimized scheduling (i.e. q2w/q3w)

[1]Data presented at ESMO 2022

Potency of Our Proprietary TCR Bispecific Format TCER®

Killing of target-positive cells by different TCR Bispecifics[1]



TCER®

2+1 TCR bispecific format:
High potency was linked to a significantly reduced specificity profile[2]

- Seven different TCR Bispecific formats were evaluated with a pHLA targeting TCR and the identical T cell recruiting antibody
- TCER® format had higher combination of potency and specificity[2] than six alternative TCR Bispecific format designs evaluated

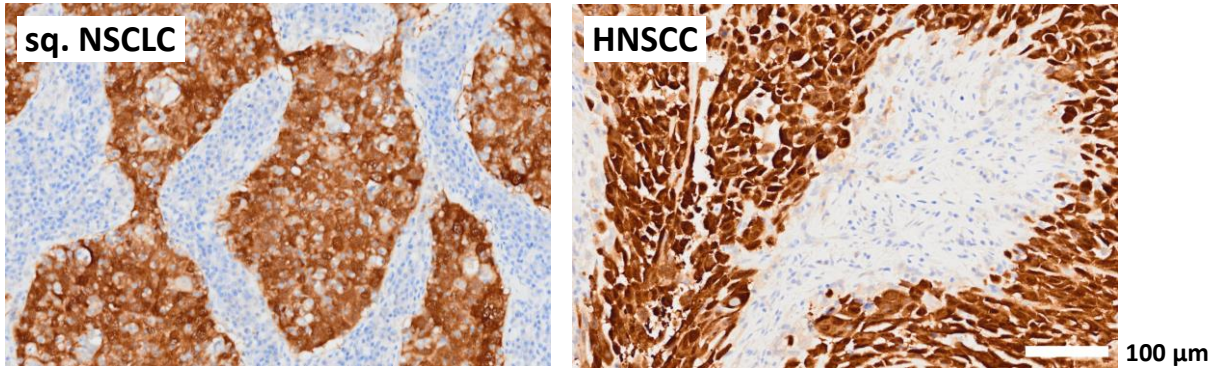
Flexible Plug-and-play platform: TCER® format successfully validated for different TCRs & different T cell recruiting antibodies

[1]Data presented at SITC 2022; [2]Preclinical data on specificity not shown

TCER® IMA401 Targeting MAGEA4/8

Higher Target Density of MAGEA4/8 Peptide

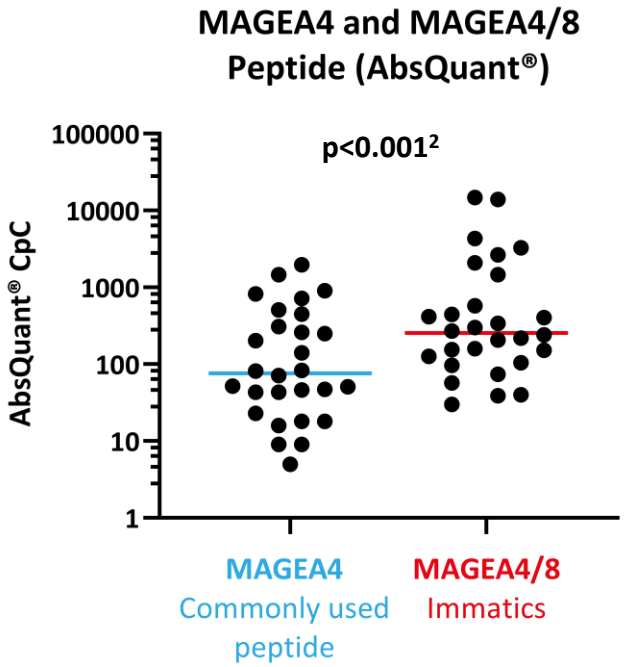
MAGEA4 protein detection in tumor samples (IHC)



MAGEA4/8 target prevalence in selected cancer indications

Indications	Target prevalence[1] [%]	Number of addressable patients*
Squamous non-small cell lung carcinoma	52%	22k
Head and neck squamous cell carcinoma	36%	7k
Bladder carcinoma	29%	9k
Ovarian carcinoma	23%	4k
Esophageal carcinoma	23%	3k
Small cell lung cancer	21%	4k
Triple-negative breast cancer	20%	2k
Gastric adenocarcinoma	14%	3k
Cutaneous melanoma	18%	2k
Non-small cell lung adenocarcinoma	9%	6k

*1L+ Unresectable or Metastatic Addressable Patient Populations (US, UK, EU4 in 2025), total MAGE A4/A8+ and HLA-A*02+

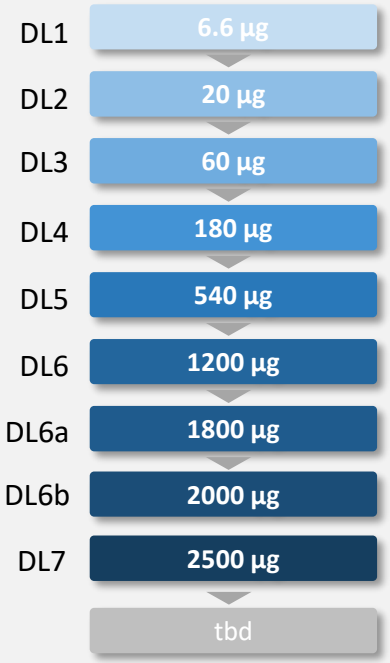


MAGEA4/8 target is presented at >5-fold higher target density[3] than a commonly used MAGEA4 target peptide

[1]MAGEA4/8 target prevalences are based on TCGA and in-house data combined with a XPRESIDENT®-determined target individual MS-based mRNA expression threshold; qPCR-threshold for patient screening; [2]Students paired T test; [3]Copy number per tumor cell (CpC) measured on a paired-sample basis by AbsQuant®, i.e. comparing MAGEA4 vs. MAGEA4/8 peptide presentation on same sample

Trial Design – IMA401-101 Phase 1a Dose Escalation

First-in-Human Basket Trial Targeting the MAGEA4/8 Peptide in Solid Tumors



Total safety population (N=35)

- MABEL-based starting dose
- Dose escalation based on cohorts of 1-6 patients using adaptive design (BLRM model)
- Four initial q1w step dosings[1] up to target dose, q2w after reaching target dose[2]

- MTD not yet determined
- Dose escalation ongoing to optimize dosing intervals and schedule

Objectives

Primary:

- Determine MTD and/or RP2D

Secondary:

- Tolerability
- Pharmacokinetics
- Initial anti-tumor activity

Key Eligibility Criteria

- Recurrent and/or refractory **solid tumors**
- HLA-A*02:01 positive
- MAGEA4/8-positive as confirmed by mRNA-based assay[3]
- ECOG status 0-2
- Received or not eligible for all available indicated standard of care treatments

[1]Step dosing with 300 µg and 600 µg introduced at DL6; Low-dose dexamethasone pre-medication used at higher dose levels as used with other approved bispecific products has been implemented as preventive measure for continued dose escalation; Patients can increase their dose to previously cleared dose levels; [2]q2w: once every two weeks, weekly (q1w) dosing was applied up to DL5; [3]IMADetect®: proprietary mRNA-based assay using Immatics' MS-guided threshold; BLRM: Bayesian logistic regression model; MTD: Maximum tolerated dose.

Baseline Characteristics

Heavily Pre-treated Patients with a Broad Range of Tumor Types

Characteristic	Safety Population N=35	Efficacy-evaluable Population[1] N=29	Patients with relevant IMA401 doses and MAGEA4/8^{high} levels[2] N=17
Age			
Median (min, max)	62 (19, 82)	63 (35, 82)	64 (35, 82)
ECOG performance status			
0 - n [%]	10 [28.6]	6 [20.7]	3 [17.6]
1 - n [%]	23 [65.7]	21 [72.4]	12 [70.6]
2 - n [%]	2 [5.7]	2 [6.9]	2 [11.8]
Prior lines of systemic treatment			
Median (min, max)	4 (2, 8)	3 (2, 8)	4 (2, 8)
LDH at baseline			
≤ 1xULN [%]	51.4	55.2	41.2
1-2xULN [%]	40.0	41.4	58.8
> 2xULN [%]	8.6	3.4	0.0
Baseline tumor burden			
Median target lesion sum of diameter [mm] (min, max)	74 (15, 202.8)	80 (15, 202.8)	84 (18, 202.8)
Number of organs with metastases			
Median (min, max)	3 (1, 6)	3 (1, 6)	3 (1, 6)
Liver/ Brain Lesions			
[% of patients]	40.0	41.4	47.1

[1]Efficacy Analysis Set (EAS) prospectively defined in the study protocol: patients who received at least four IMA401 infusions and had at least one post-baseline efficacy assessment or clinical progression. Three patients did not receive all four infusions due to clinical progression and three patients awaiting their first scans as of the data cut-off date are not included in the EAS; [2]Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. LDH: Lactate dehydrogenase; ULN: Upper limit of normal.

IMA401 Demonstrates Manageable Tolerability in N=35 Patients

Most Frequent Related AEs were Lymphopenia, CRS and Neutropenia

Treatment-related AEs[1], n [%]	All Grades	≥ Grade 3
Lymphopenia	12 [34]	11 [31]
Cytokine release syndrome	11 [31]	0
Neutropenia	8 [23]	5 [14]
Facial pain	6 [17]	2 [6]
Anaemia	5 [14]	4 [11]
Thrombocytopenia	5 [14]	2 [6]
Headache	5 [14]	1 [3]
Hypertension	4 [11]	2 [6]
Leukopenia	4 [11]	2 [6]
Fatigue	4 [11]	0
Nausea	3 [9]	0
Hypoxia	2 [6]	1 [3]
Aspartate aminotransferase increased	1 [3]	1[3]
Febrile neutropenia	1 [3]	1[3]
Pneumonia	1 [3]	1[3]
Sinus tachycardia	1 [3]	1[3]

TEAEs, n [%]	All Grades	≥ Grade 3
Any	32 [91]	26 [74]
Treatment-related	28 [80]	19 [54]

- Overall **manageable tolerability** profile
- **Most frequent/relevant related AEs** were
  - transient lymphopenia,
  - mild to moderate CRS (23% Grade 1, 9% Grade 2, **no Grade ≥ 3**), majority at first dose
  - neutropenia[2] occurred mostly at initial target dose and fully resolved in all cases except one (see below)
  - one possibly related death (pneumonia in the context of lung tumor progression and concurrent neutropenia) as previously reported[3]
- **MTD not reached** based on the BLRM

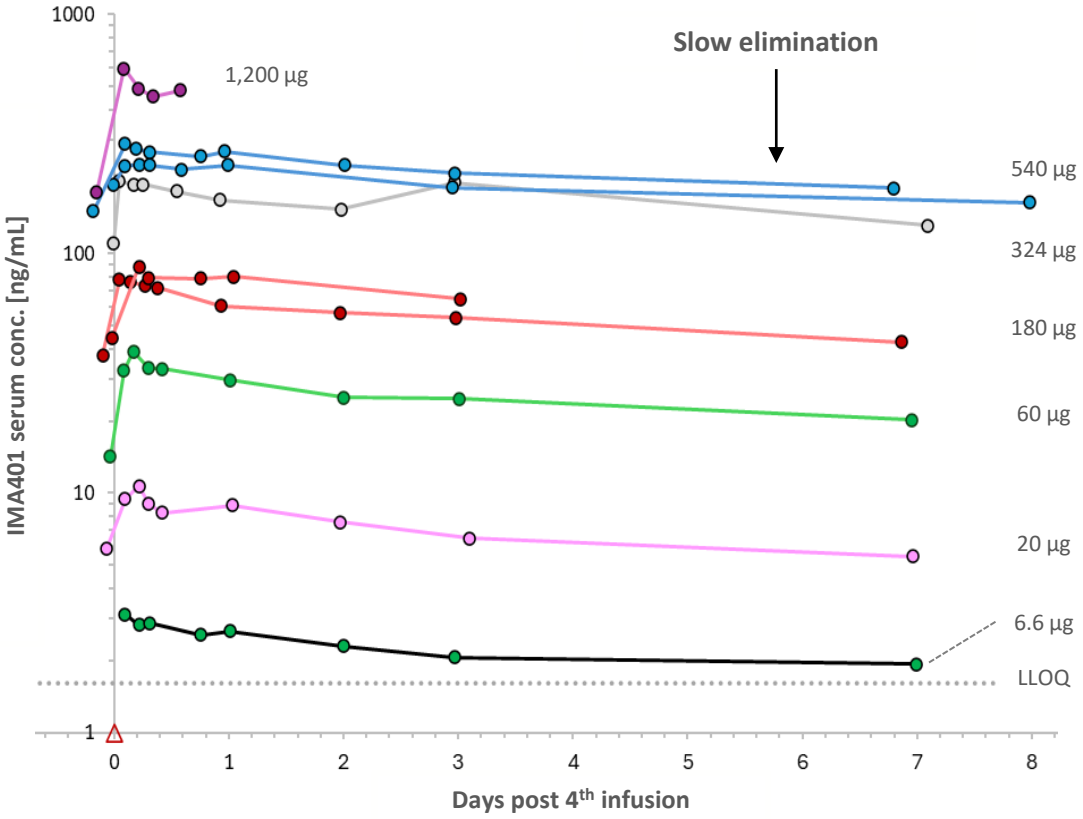
[1]All treatment-emergent adverse events (TEAEs) at least possibly related to IMA401 infusion with grade 1-2 occurring in at least 9% of patients and all events with grade 3-5; [2]with three dose-limiting events at 2.5 mg (DLT), neutropenia observed in patients with and without dexamethasone pre-medication; [3]reported in Annual Report 2023, patient did not receive dexamethasone pre-medication; CRS: Cytokine release syndrome; BLRM: Bayesian logistic regression model; MTD: Maximum tolerated dose.

IMA401 Pharmacokinetics

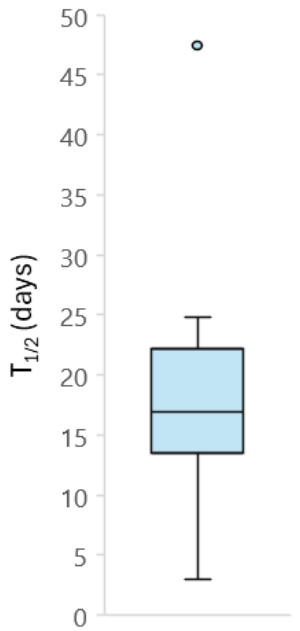
TCER® Format Shows Extended Half-Life in Solid Cancer Patients

PK profiles

(1 week profiles after 4th IMA401 infusion)



Median half-life: 16.9 days (N=16)[1]



Observed $T_{1/2}$ > 2 weeks

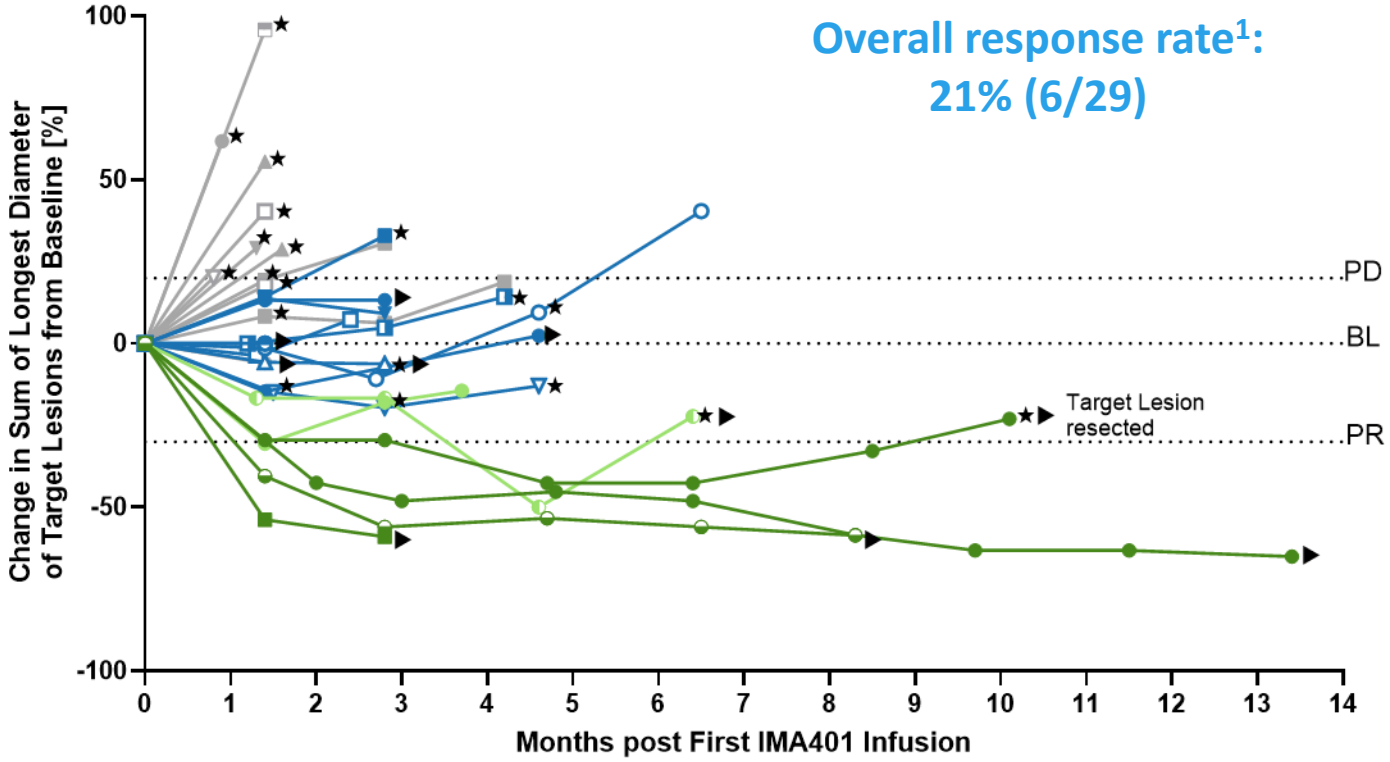
- Confirms "antibody-like" half-life predicted by preclinical *in-vivo* data[2]
- Supports exploring increased dosing intervals of up to q4w and pursuing alignment with typically applied CPI dosing regimens

[1]Half-lifes derived from 2nd PK profiles close to steady-state. Calculated by non-compartmental analysis (NCA) using Phoenix WinNonlin (Certara); Interquartile range (25%-75% percentile): 13.5-22.2 days; [2]Data presented at European Antibody Congress 2020; Zinn et al., *Nature Cancer*, 2023: https://doi.org/10.1038/s43018-023-00516-z; LLOQ: lower limit of quantification; q4w: once every four weeks. CPI: Checkpoint inhibitor

Data cut-off Jul 23, 2024

IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-7; N=29*)



Overall response rate[1]: 21% (6/29)

BOR (RECIST 1.1)

- PD
- SD
- PR
- cPR
- ▶ Ongoing treatment
- ★ Timepoint of PD according to RECIST 1.1

Cancer indications

- Cut. Melanoma
- Gallbladder Adenocarcinoma
- Gastric Adenocarcinoma
- HNSCC
- LCNEC Lung
- LCNEC Esophageal
- Muc. Melanoma
- NET CUP
- Ovarian Carcinoma
- SCLC
- sqNSCLC
- Synovial Sarcoma
- TNBC

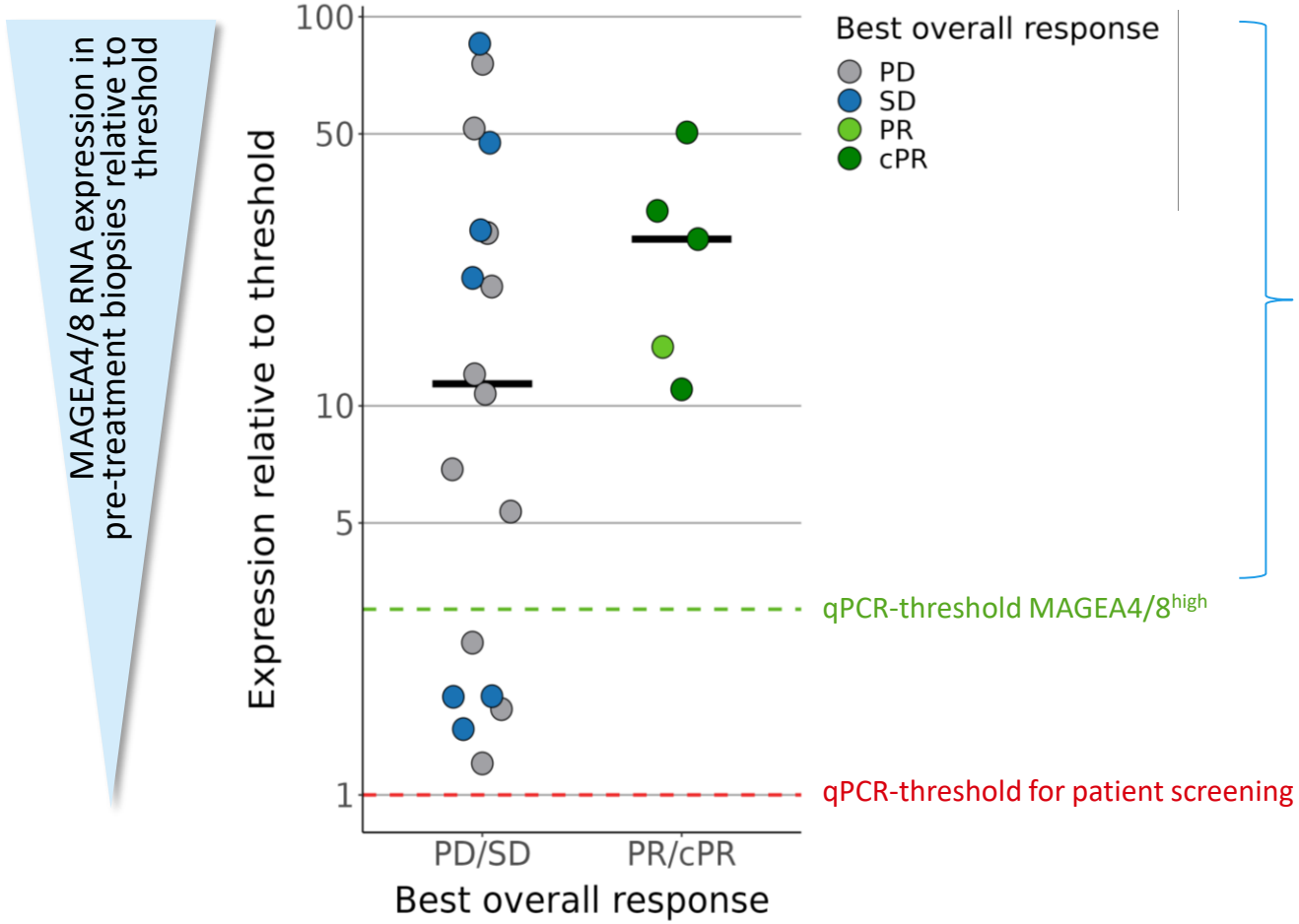
- Responses in HNSCC, neuroendocrine tumor, cut. and muc. melanoma
- Durable responses in 3 of 4 confirmed responses **ongoing** at 13+, 8+ and 3+ months
- Disease control in a number of relevant tumor types including sqNSCLC, ovarian carcinoma, TNBC, gastric adenocarcinoma, and gallbladder adenocarcinoma
- All confirmed responses in patients who had received infusions at ≥1 mg

Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neurodendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. [1]includes confirmed and unconfirmed PR; BL: Baseline ; BOR: Best overall response; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

Objective Responses are Associated with Target Expression

Exploratory Analysis in Patients with MAGEA4/8^{high} Expression at Relevant IMA401 Doses (DL6-7; N=17)

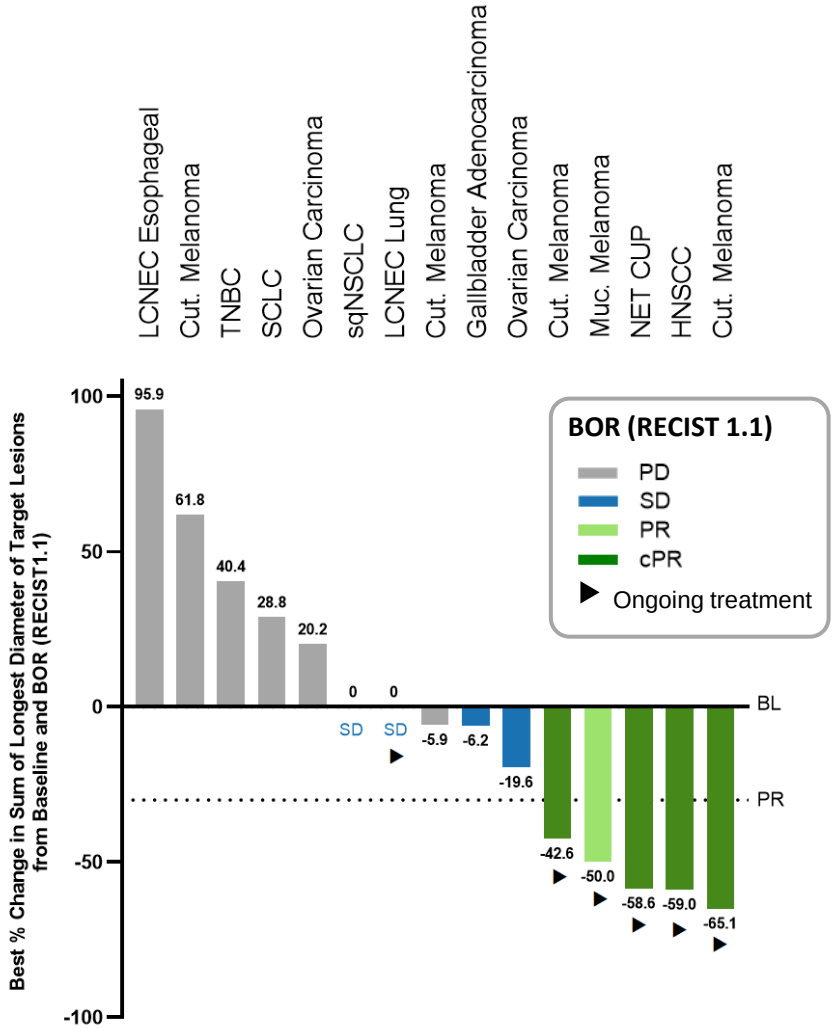


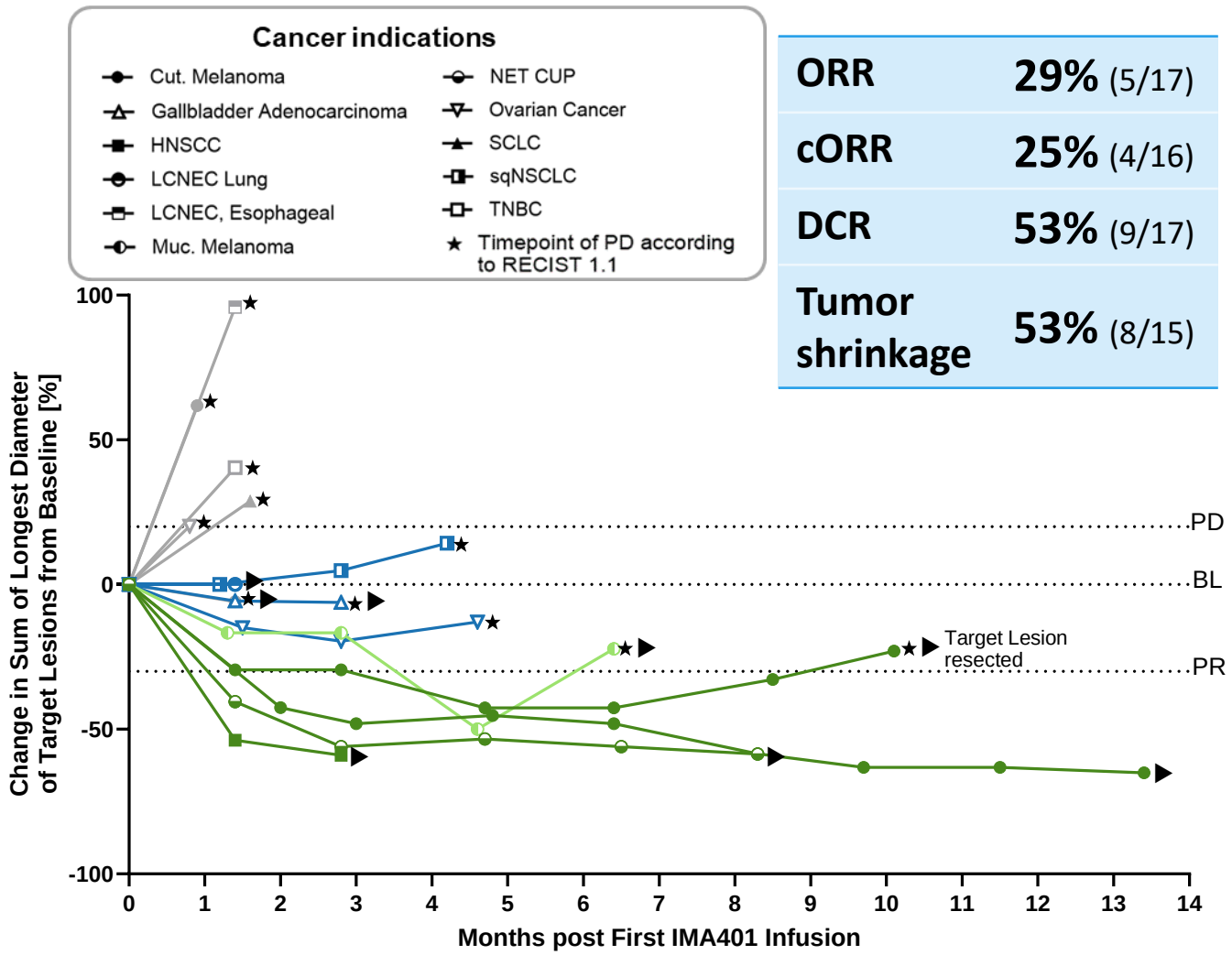
N=17 patients with relevant IMA401 doses and MAGEA4/8^{high} levels[1]

[1]Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression above indicated MAGEA4/A8^{high} qPCR threshold (n=17);
PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

Exploratory Analysis in Patients with MAGEA4/8^{high} Expression at Relevant IMA401 Doses (DL6-7; N=17*)





ORR	**29%** (5/17)
cORR	**25%** (4/16)
DCR	**53%** (9/17)
Tumor shrinkage	**53%** (8/15)

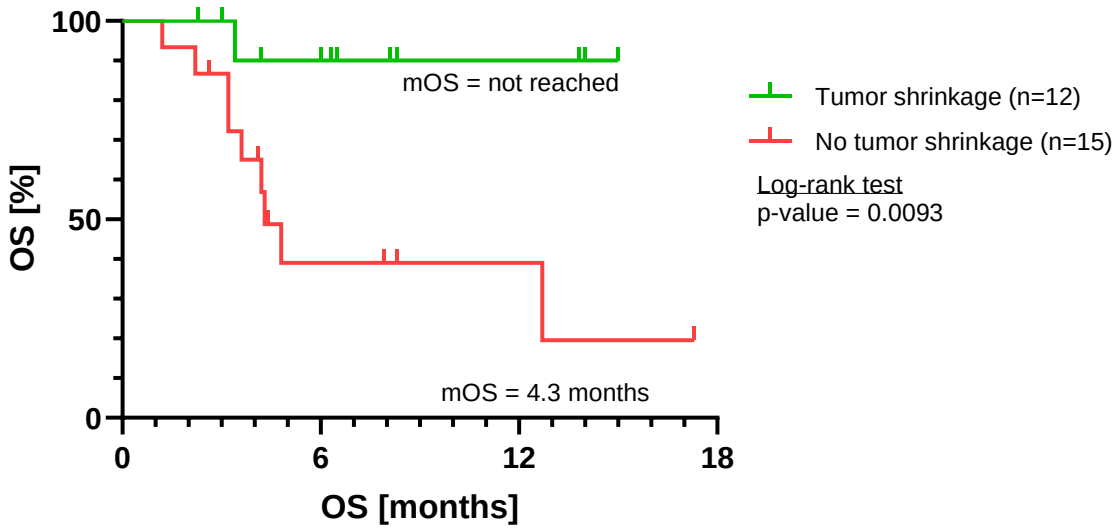
Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neurodendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

*Patients in this analysis are part of the efficacy analysis set with at least one post-treatment tumor assessment and had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (n=17); Confirmed ORR (cORR): Confirmed objective response rate according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation or shown in the figures as they had clinical progression and post-treatment tumor assessment is not available; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

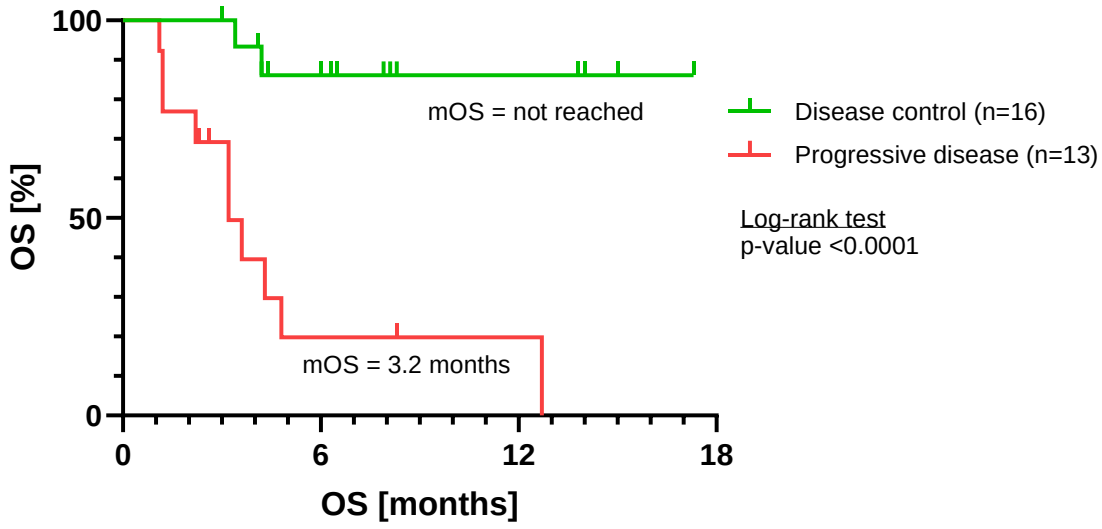
Tumor Shrinkage and Disease Control Induced by IMA401 Associated with Prolonged Overall Survival

Analysis Across All Doses and Target Levels (DL1-7)

OS in patients with and without tumor shrinkage (N=27*)



OS in patients with disease control and progressive disease (N=29)



12.7 months median OS across multiple tumor types and all dose levels (n=29)

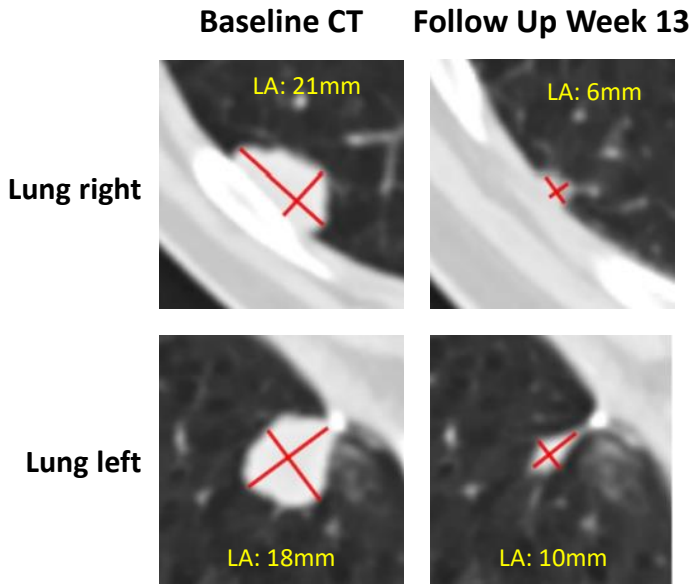
Tumor shrinkage (12/27 patients) and **disease control** (16/29) **associate with long-term outcome:**

- **Significantly longer OS** in these groups of patients (mOS not reached vs. 4.3 months or 3.2 months, respectively)

Overall Survival (OS) censored at data-cut; *two patients with clinical progression prior to first tumor assessment not included; mOS: median overall survival.

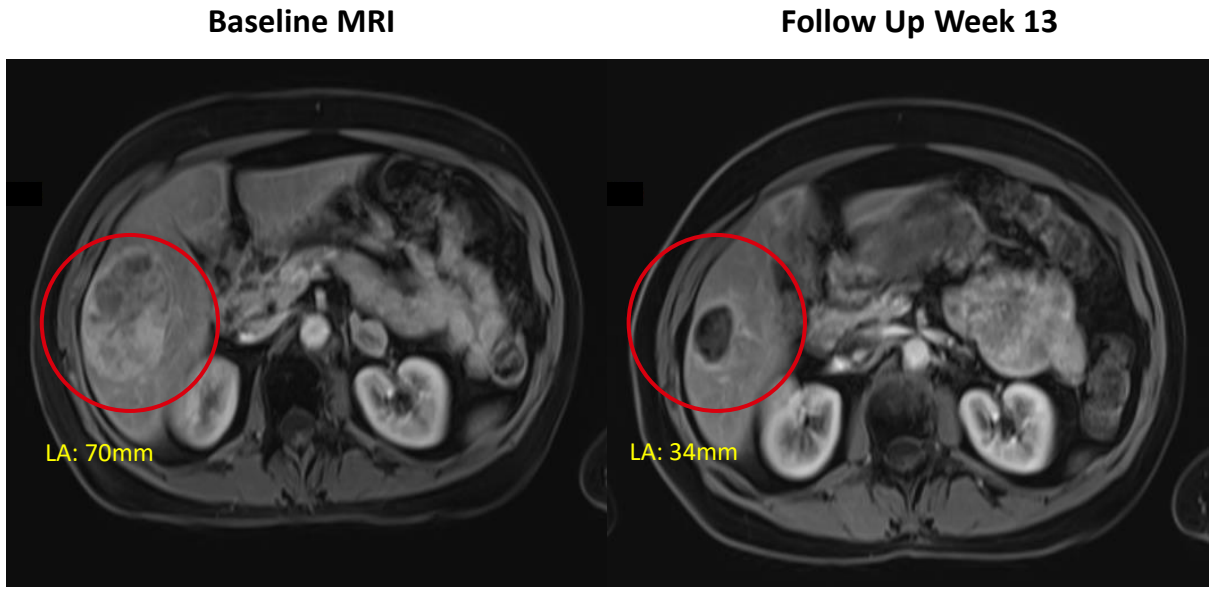
Clinical Activity in Heavily Pre-Treated Cancer Patients

63-year-old male, HNSCC, MAGEA4/8^{high}



Patient Characteristics	Outcomes
HNSCC, Hypopharynx	cPR -59% reduction
Lesions in lung	cPR ongoing at week 12 post-treatment start
3 prior lines of therapy: Platinum chemotherapy, anti-PD-1/chemotherapy, anti-EGFR/chemotherapy	

60-year-old female, NET CUP, MAGEA4/8^{high}



Patient Characteristics	Outcomes
NET CUP	cPR -56% reduction (BOR: -58.6%)
Lesions in liver, lung, bone, pancreas, adrenal gland, lymph nodes	cPR ongoing at week 36 post-treatment start
4 prior lines of therapy: Two lines of radiopharmaceuticals, chemotherapy, mTOR inhibitor	

CT and MRI scans courtesy of treating physicians (Dr. Manik Chatterjee, University Hospital Wuerzburg and Dr. Max-Felix Häring, Eberhard Karls University Tuebingen); HNSCC: Head and neck squamous cell carcinoma; NET CUP: Neuroendocrine tumor-cancer of unknown primary; LA: Long axis; cPR: confirmed Partial response; BOR: Best overall response

First-in-human Data of IMA401 TCER® Targeting MAGEA4/8

- **Tolerability**: Most common treatment-related AEs are low-grade CRS, transient lymphopenia and neutropenia
- **Pharmacokinetics**: Median terminal half-life of 16.9 days supporting potential further flexibility in future dosing schedules incl. combination with CPI and increased dosing intervals up to q4w
- **Initial anti-tumor activity in heavily pre-treated patients**
  - Objective responses in HNSCC, neuroendocrine tumor of unknown origin, cutaneous and mucosal melanoma including durable ongoing PRs of up to 13+ months
  - Deep responses (tumor shrinkage of ≥ 50%) in four patients including deepening of responses over time
  - Objective responses are associated with target expression and IMA401 dose: ORR 29%, cORR 25%, and tumor shrinkage in 53% of patients with relevant IMA401 doses and MAGEA4/8^{high} target levels
- **Dose escalation ongoing**

AE: Adverse Event; CRS: Cytokine Release Syndrome; CPI: checkpoint inhibitors; q4w: once every four weeks; HNSCC: Head and neck squamous cell carcinoma; PR: Partial response

Special Thanks to the Patients, their Families

…and the IMA401 Investigators at the Clinical Sites

Dresden: Prof. M. Wermke
Berlin: Prof. S. Ochsenreither
Wuerzburg: Dr. M. Chatterjee
Duesseldorf: Dr. S. Gröpper
Tuebingen: Dr. M.-F. Häring
Regensburg: Dr. D. Heudobler
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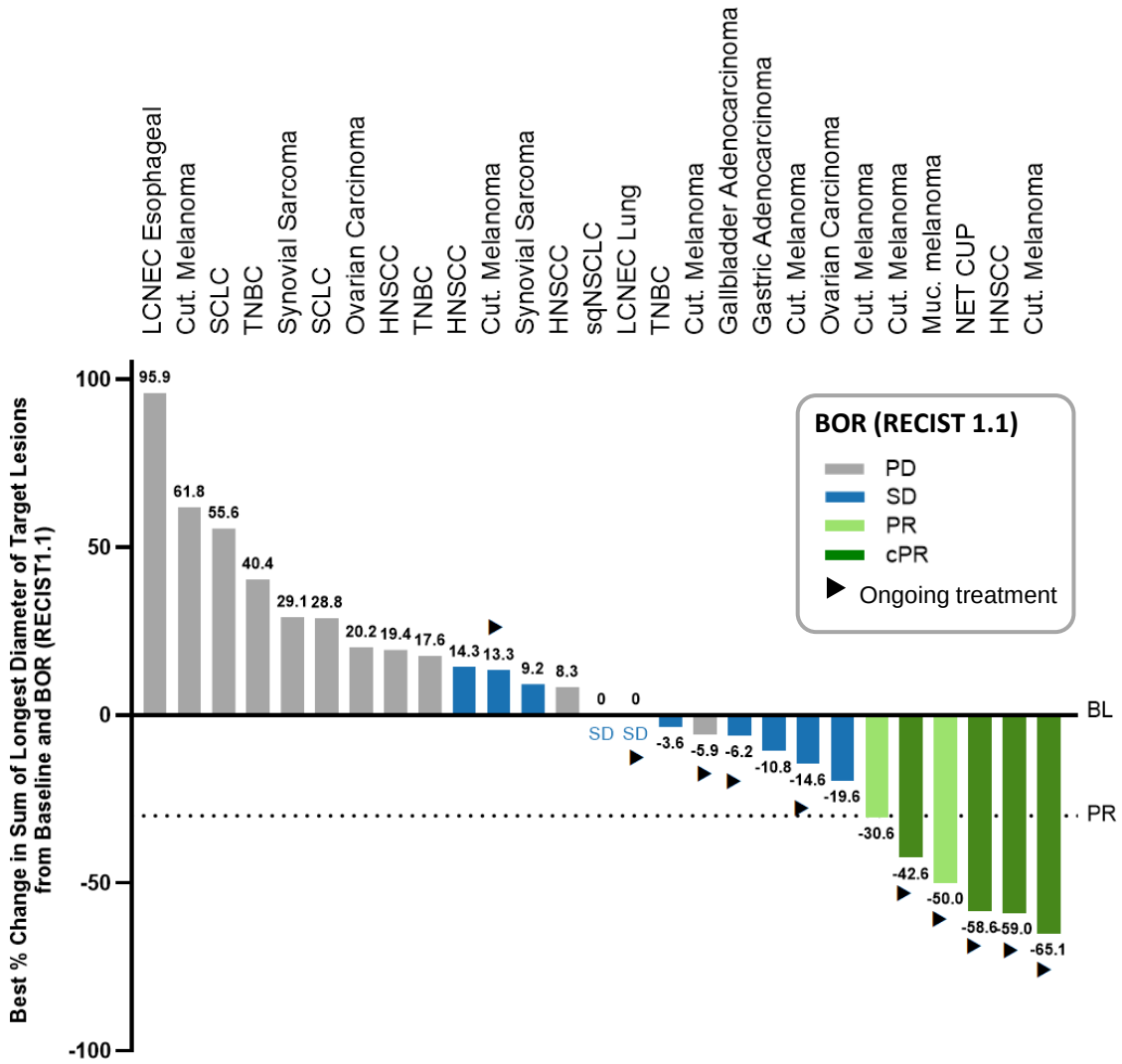
Appendix

IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-7; N=29*)



16 Different Indications	# of Patients Safety (Efficacy-evaluable) Population
Cut. Melanoma	7 (7)
Muc. Melanoma	1 (1)
Synovial Sarcoma	6 (3)
TNBC	4 (3)
HNSCC	4 (4)
SCLC	2 (2)
Ovarian Carcinoma	2 (2)
sqNSCLC	1 (1)
AdNSCLC	1 (1)
NET CUP	1 (1)
Gastric Adenocarcinoma	1 (1)
LCNEC Esophageal	1 (1)
LCNEC Lung	1 (1)
Gallbladder Adenocarcinoma	1 (1)
Bladder carcinoma	1 (0)
Testicular GCT	1 (0)

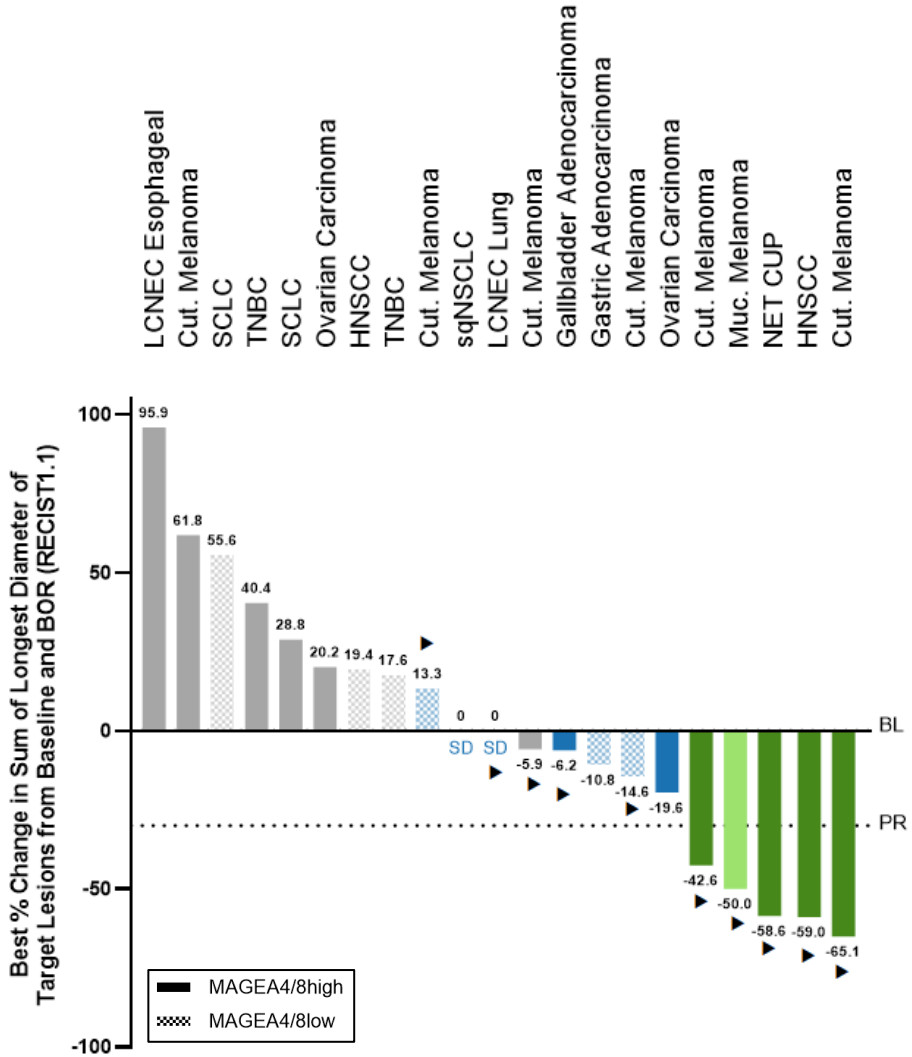
*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions.

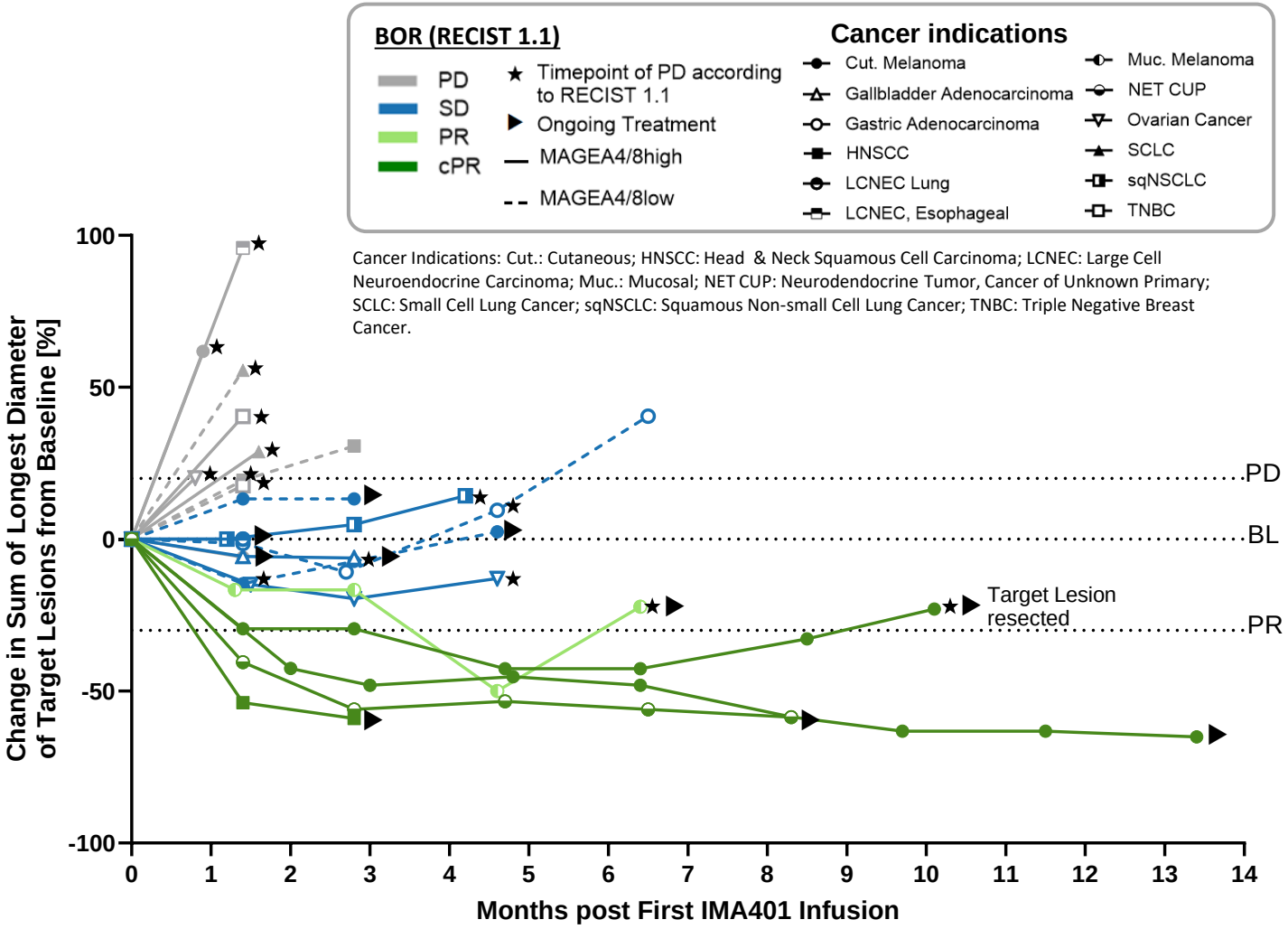
Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neurodendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

BL: Baseline; BOR: Best overall response; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: confirmed Partial response.

IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

Patients at Relevant IMA401 Doses (DL6-7; N=23*)





*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; Two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions.
BOR: Best overall response; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

Objective Responses are Associated with Target Expression

Exploratory Analysis in Patients with MAGEA4/8^{high} Expression at Relevant IMA401 Doses (DL6-7; N=17)

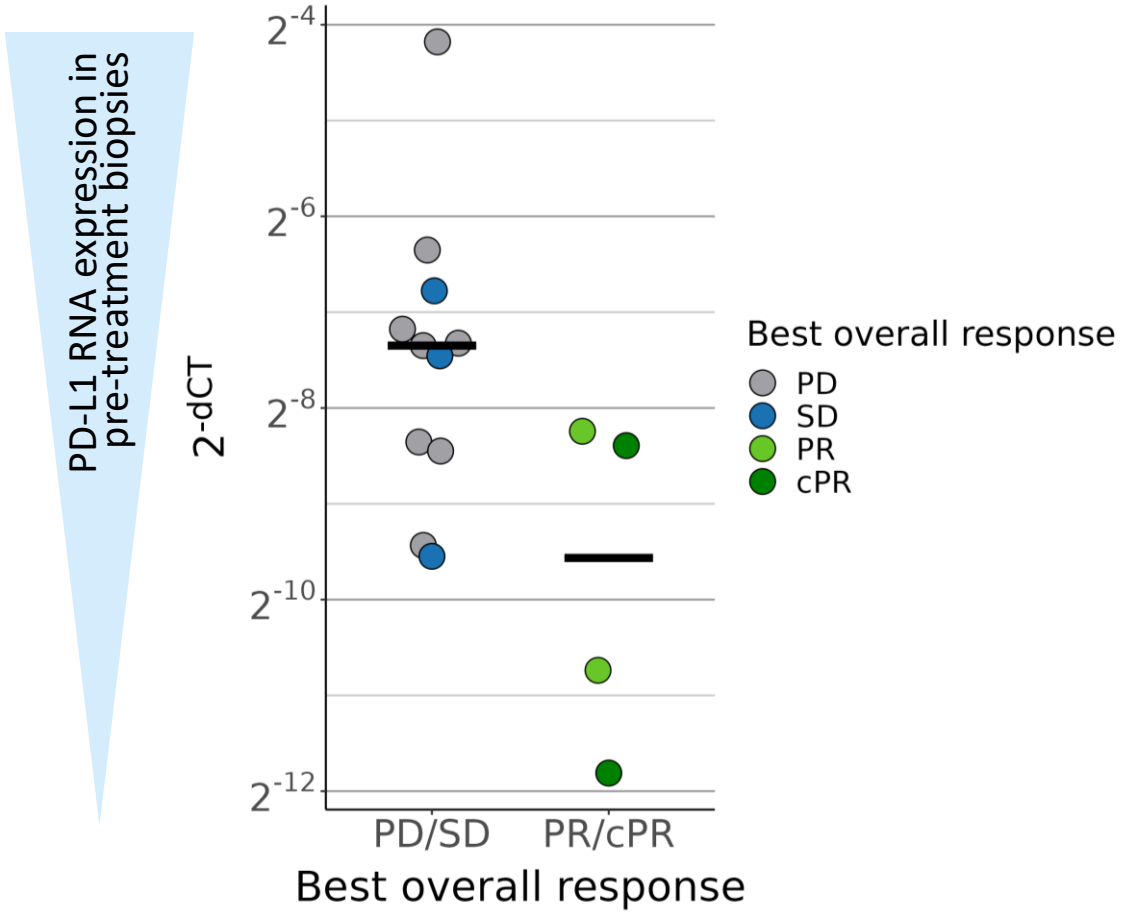
	Patients with relevant IMA401 doses and MAGEA4/8^{high} levels[1] (N=17)	Overall efficacy-evaluable population across all dose and target levels (N=29)
ORR	**29%** (5/17)	21% (6/29)
cORR	**25%** (4/16)	14% (4/28)
DCR	**53%** (9/17)	55% (16/29)
Tumor shrinkage	**53%** (8/15)	44% (12/27)

[1]Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (N=17); DCR: Disease Control Rate; ORR: Objective Response Rate; Confirmed objective response rate (cORR) according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation as they had clinical progression and post-treatment tumor assessment is not available.

Level of PD-L1 Expression is Associated with Clinical Outcome

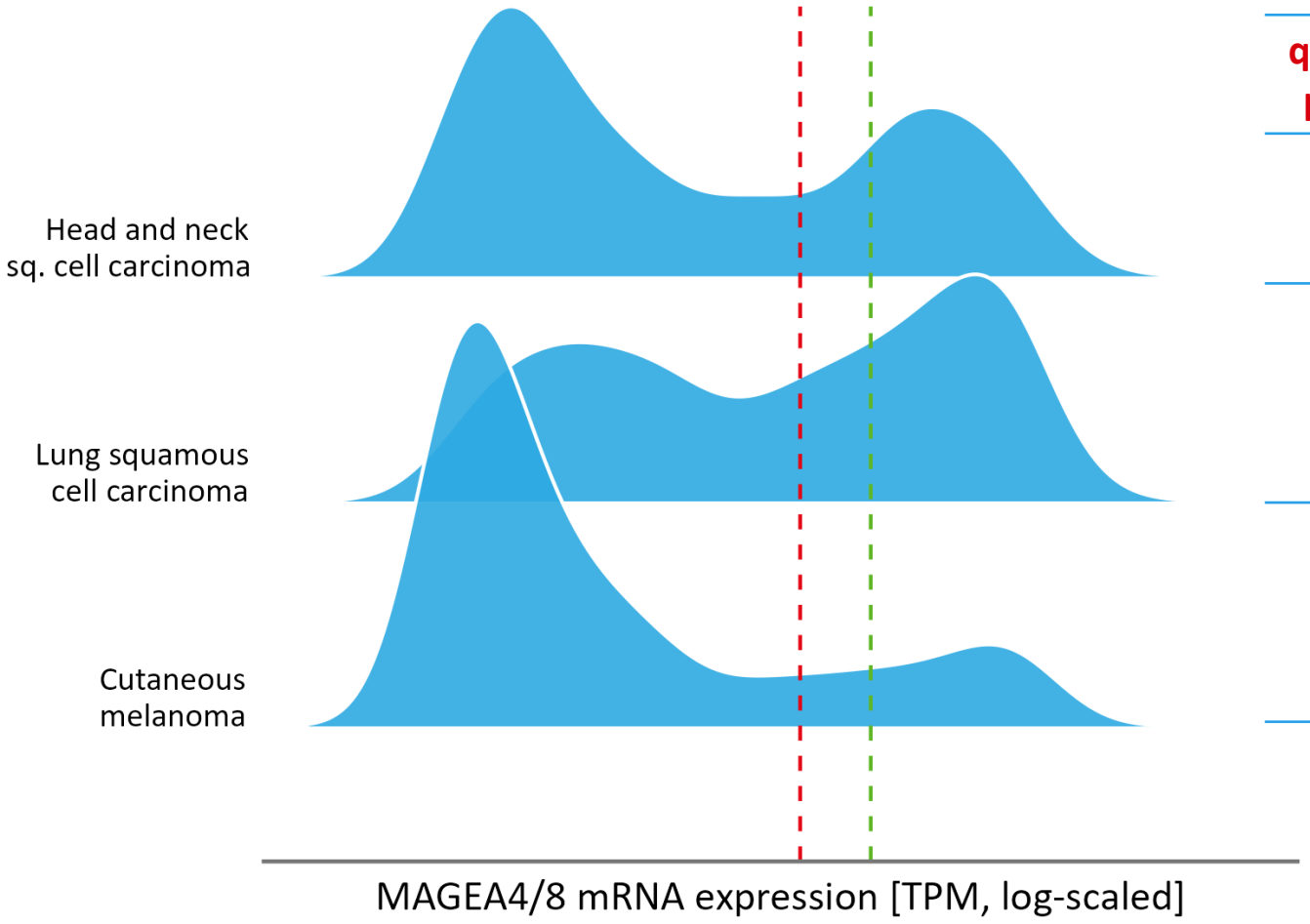
Responses as per RECIST 1.1 (PR/cPR) are seen mainly in tumors with low PD-L1 expression

- In line with proposed resistance mechanism of tumor cells
- sqNSCLC and HNSCC known to express high PDL1 levels and have approved CPI therapies
  - ➢ suggests combination therapy with CPI as a logical next step



sqNSCLC: squamous non-small cell lung cancer; HNSCC: Head & Neck Squamous Cell Carcinoma; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: confirmed Partial response; CPI: Checkpoint inhibitor; limited number of samples shown based on sample availability.

MAGEA4/8 Target Expression Profiles Across Selected Tumor Types



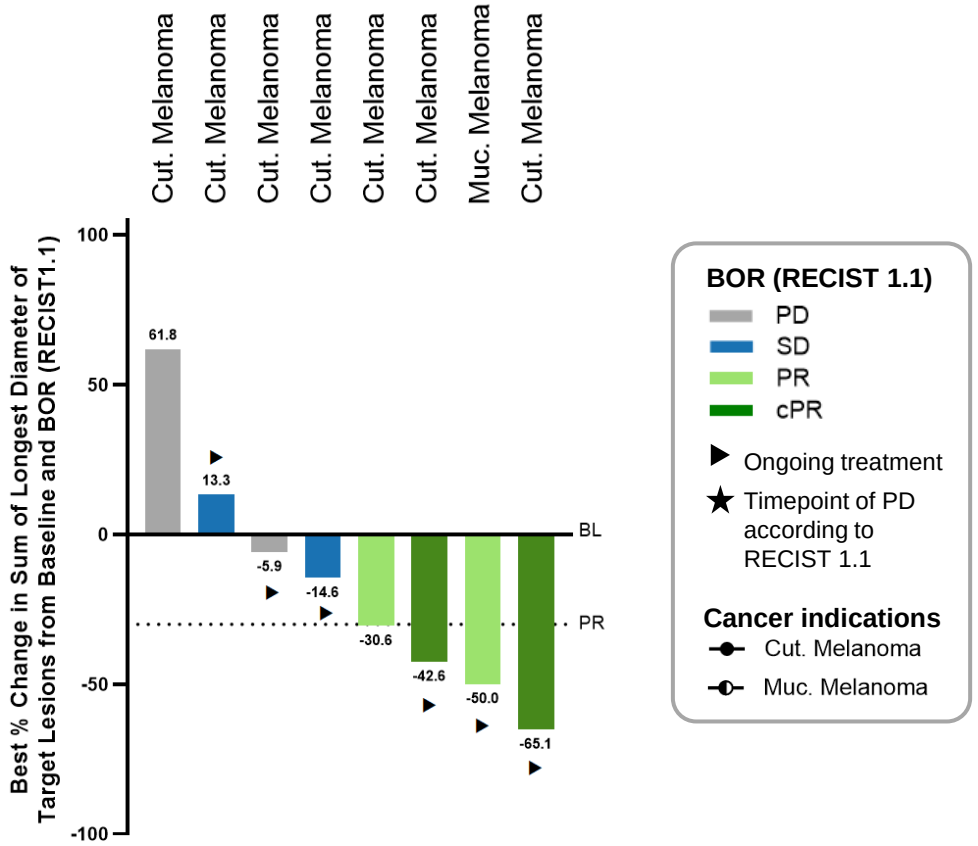
Target Prevalences[1]

qPCR-threshold for patient screening	qPCR-threshold MAGEA4/8^{high}
36%	31%
52%	41%
18%	15%

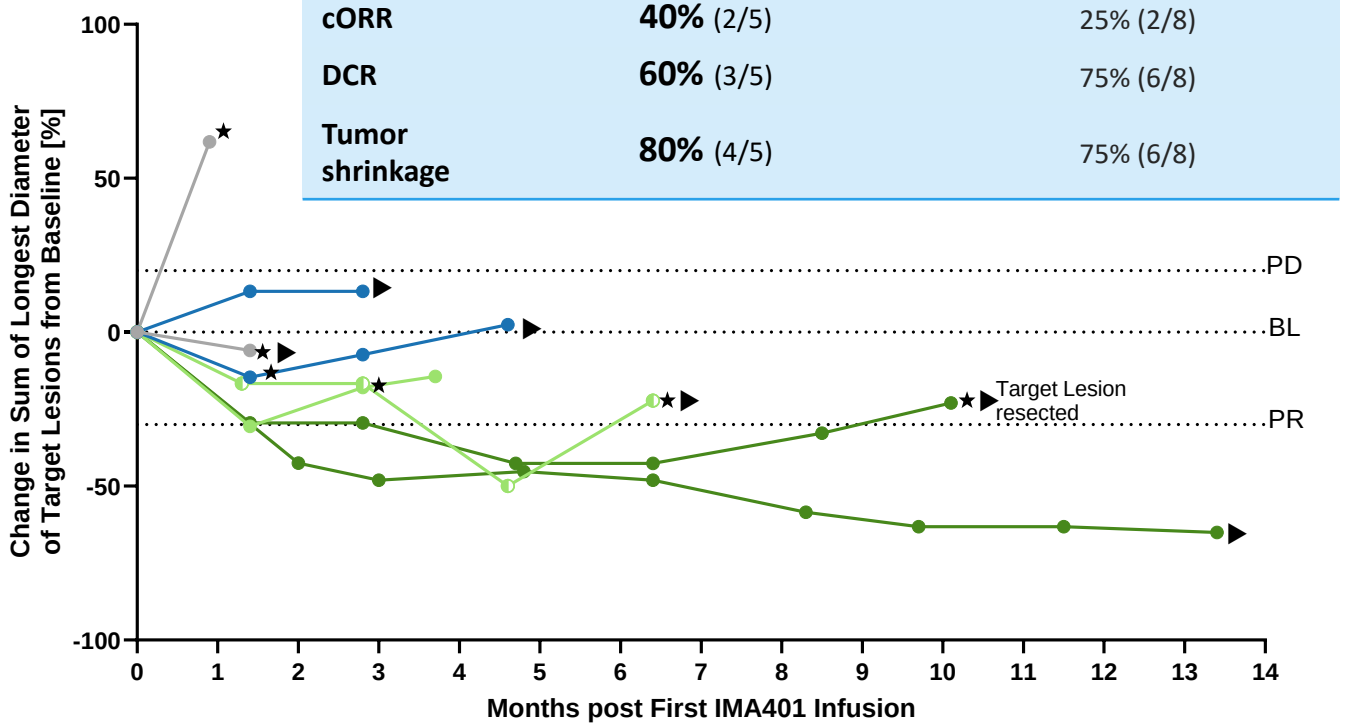
MAGEA4/8 target expression distribution (blue histogram) based on TCGA RNAseq data; [1]MAGEA4/8 target prevalence is based on TCGA RNAseq data combined with a proprietary MS-guided RNA expression threshold.

Initial Anti-Tumor Activity – Subanalysis of Melanoma Patients

Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-DL7; N=8*)



	Patients with relevant IMA401 doses and MAGEA4/8^{high} levels[1]	Overall efficacy-evaluable population across all dose and target levels
ORR	**60%** (3/5)	50% (4/8)
cORR	**40%** (2/5)	25% (2/8)
DCR	**60%** (3/5)	75% (6/8)
Tumor shrinkage	**80%** (4/5)	75% (6/8)



*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. [1]Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (N=5). DCR: Disease Control Rate; ORR: Objective Response Rate; Confirmed objective response rate (cORR) according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation as they had clinical progression and post-treatment tumor assessment is not available.
BL: Baseline; BOR: Best overall response; Cut: Cutaneous; Muc: Mucosal; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

Baseline Characteristics – Subanalysis of Melanoma Patients

Heavily Pre-treated Melanoma Patients

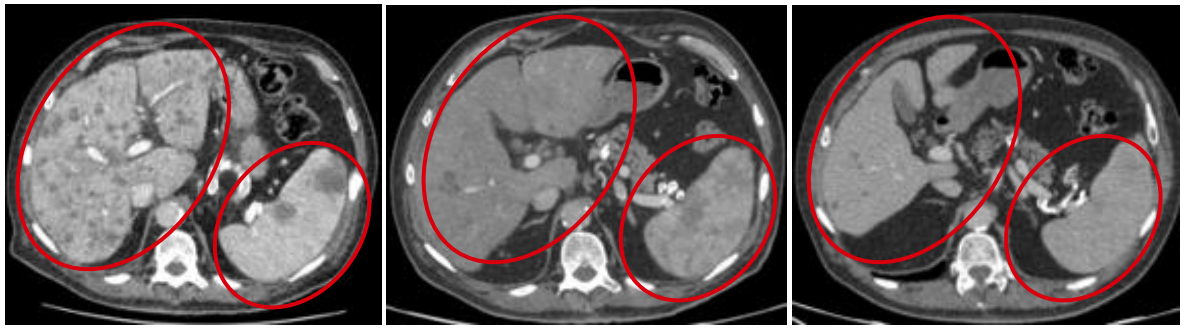
Characteristic	Safety Population: All Melanoma Patients (N=8)
Indications	Cut. Melanoma 7/8 [87.5]
n [%]	Muc. Melanoma 1/8 [12.5]
Age	
Median (min, max)	76.5 (62, 82)
ECOG performance status	
0 - n [%]	1 [12.5]
1 - n [%]	7 [87.5]
2 - n [%]	0 [0.0]
Prior lines of systemic treatment	
Median (min, max)	4 (2, 5)
Prior lines of CPI treatment	
Median (min, max)	2 (1, 3)
Thereof patients treated with	
Anti-PD1 Therapy [%]	100.0
Ipilimumab [%]	87.5
BRAF Inhibitors [%]	25.0
Experimental Therapies [%]	25.0
LDH at baseline	
≤ 1xULN [%]	62.5
1-2xULN [%]	37.5
>2xULN [%]	0.0
Baseline tumor burden	
Median target lesion sum of diameter [mm] (min, max)	71.5 (15, 178)
Number of organs with metastases	
Median (min, max)	3.5 (1, 5)
Liver/ Brain Lesions	
[% of patients]	25.0

LDH: Lactate dehydrogenase; ULN: Upper limit of normal.

Clinical Activity in Heavily Pre-Treated Melanoma Patients

75-year-old male, cut. melanoma, MAGEA4/8^{high}

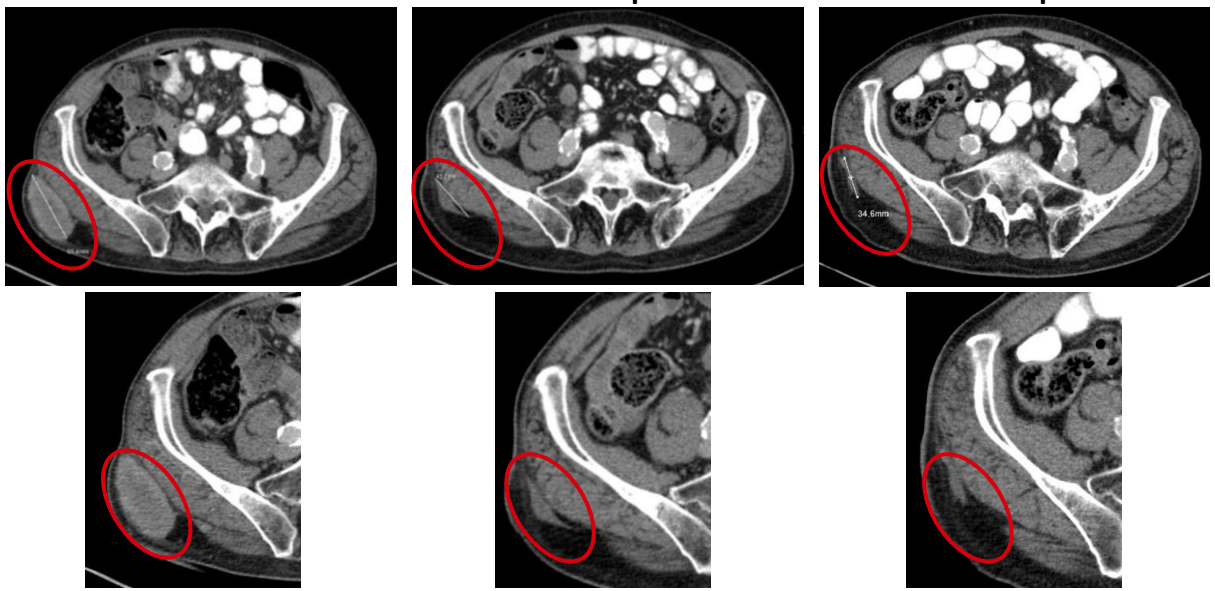
Baseline CT | Follow Up Month 3 | Follow Up Month 8



Patient Characteristics	Outcomes
Cutaneous Melanoma	cPR -65.1% reduction
Lesions in lymph nodes, chest wall, liver, spleen	cPR ongoing at week 58 post-treatment start
5 prior lines of therapy: Anti-PD-1, RAF kinase inhibitors, MEK kinase inhibitor, oncolytic virus, Anti CTLA-4	

78-year-old male, cut. melanoma, MAGEA4/8^{high}

Baseline CT | Follow Up M3 | Follow Up M6



Patient Characteristics	Outcomes
Cutaneous Melanoma	cPR -42.6% reduction
Lesions in lymph nodes, peritoneum, soft tissue gluteal, subcutaneous	Deepening response from SD to cPR over 44 weeks post-treatment start
2 prior lines of therapy: Anti-PD-1, anti-CTLA-4/anti-PD-1	

CT scans courtesy of treating physicians (Dr. S. Ochsenreither, Charité Berlin and Dr. M. Wermke, TU Dresden); SD: Stable disease, cPR: confirmed Partial response.

IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29*)

#N	Indication	MAGEA4/8$^{high\ 1}$	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
1	Syn. Sarcoma	Yes	3	Doxorubicin/ Ifosfamide Trabectedin Docetaxel/Gemcitabine	DL1	55	PD	29.1
2	TNBC	Yes	3	Letrozole Capecitabine Gemcitabine	DL3	57	SD	-3.6
3	Syn. Sarcoma	Yes	2	Melphalan/ Tumor Necrosis Factor Alpha Doxorubicin/ Ifosfamide	DL3	65	SD	9.2
4	HNSCC	Yes	2	Fluorouracil/ Carboplatin/ Pembrolizumab Cetuximab/ Docetaxel	DL5	112	SD	14.3
5	Cut. Melanoma	Yes	5	Nivolumab Trametinib/ Dabrafenib Binimetinib/ Encorafenib Talimogene Laherparepvec Ipilimumab	DL6a	106	cPR	-65.1
6	HNSCC, Tonsil	Yes	3	Cisplatin Carboplatin/ Fluorouracil/ Folic Acid/ Pembrolizumab Cisplatin/ Fluorouracil/ Cetuximab	DL5	48	PD	8.3
7	Cut. Melanoma	Yes	2	Pembrolizumab Ipilimumab/ Nivolumab	DL6a	61	cPR	-42.6
8	Cut. Melanoma	Yes	5	Pembrolizumab Ipilimumab/ Nivolumab/ Talimogene Laherparepvec Dacarbazine Citrate Ipilimumab/ Nivolumab Trametinib	DL5	111	PR	-30.6
9	TNBC	Yes	6	Cyclophosphamide/ Epirubicin/ Paclitaxel Paclitaxel Nanoparticle Albumin-bound/ Atezolizumab Eribulin/ Sacituzumab Govitecan/ Gemcitabine/ Carboplatin Eribulin Trastuzumab Deruxtecan Cisplatin/ Gemcitabine	DL6	52	PD	40.4
10	Ovarian Cancer	Yes	2	Carboplatin/ Paclitaxel/ Bevacizumab/ Niraparib Pegylated Liposomal Doxorubicin Hydrochloride	DL6	114	PD	20.2

*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. [1]Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29*) cont.

#N	Indication	MAGEA4/8$^{high\ 1}$	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
11	Neuroendocrine tumor, unknown origin (NET CUP)	Yes	4	Dota-tyr(3)-octreotid;Lutetium (Lu 177) Dota-tyr(3)-octreotid;Lutetium (Lu 177) Temozolomide Everolimus	DL6a	116	cPR	-58.6
12	HNSCC, oral cavity	No	2	Pembrolizumab Docetaxel Cetuximab	DL6	129	PD	19.4
13	Gastric Adenocarcinoma	No	4	Docetaxel/ Fluorouracil/ Folinic Acid/ Oxaliplatin Fluorouracil/ Folinic Acid/ Irinotecan Pembrolizumab Paclitaxel/ Ramucirumab	DL7	74	SD	-10.8
14	sqNSCLC	Yes	2	Carboplatin/ Paclitaxel Nanoparticle Albumin-bound/ Atezolizumab Docetaxel/ Ramucirumab	DL7	84	SD	0.0
15	SCLC	Yes	6	Carboplatin/ Etoposide Phosphate Topotecan Gemcitabine Nivolumab/ Ipilimumab Atezolizumab/ Cisplatin/ Etoposide Phosphate Topotecan	DL7	80	PD	28.8
16	Cut. Melanoma	Yes	5	Cobimetinib/ Vemurafenib Binimetinib/ Encorafenib Nivolumab/ Ipilimumab Binimetinib/ Encorafenib Other Antineoplastic Agents	DL7	178	PD	61.8
17	TNBC	No	5	Leuprorelin Acetate/ Exemestane/ Cyclophosphamide/ Epirubicin/ Paclitaxel Pembrolizumab Carboplatin/ Gemcitabine Hydrochloride Sacituzumab Govitecan/ Capecitabine Trastuzumab Deruxtecan	DL7	34	PD	17.6
18	Muc. Melanoma	Yes	3	Ipilimumab/ Nivolumab Nivolumab Imatinib	DL6a	18	PR	-50.0

*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. [1]Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29*) cont.

#N	Indication	MAGEA4/8$^{high\ 1}$	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
19	Ovarian Cancer	Yes	8	Carboplatin/ Gemcitabine/ Paclitaxel Carboplatin/ Paclitaxel/ Bevacizumab Carboplatin/ Doxorubicin/ Niraparib Letrozole Bevacizumab/ Carboplatin/ Paclitaxel Trametinib Carboplatin/ Paclitaxel Sacituzumab Govitecan	DL6a	202.8	SD	-19.6
20	Cut. Melanoma	No	2	Pembrolizumab Ipilimumab/ Nivolumab	DL6a	82	PD (iSD)[2]	-14.6
21	LCNEC, Esophageal	Yes	3	Carboplatin/ Etoposide Calcium Folinate;Fluorouracil;Irinotecan Hydrochloride Avelumab/ Cabozantinib	DL6a	99.4	PD	95.9
22	Cut. Melanoma	No	4	Pembrolizumab Ipilimumab/ Nivolumab Dacarbazine Citrate Ipilimumab/ Nivolumab	DL6a	15	SD	13.3
23	HNSCC, Hypopharynx	Yes	3	Cisplatin/ Carboplatin Carboplatin/ Fluorouracil/ Pembrolizumab Docetaxel/ Cetuximab	DL6a	39	cPR	-59.0
24	LCNEC, Lung	Yes	2	Carboplatin/ Atezolizumab/ Etoposide Carboplatin/ Paclitaxel	DL6a	23	SD	0.0
25	Gallbladder Adenocarcinoma	Yes	6	Capecitabine Cisplatin/ Gemcitabine Fluorouracil/ Folinic Acid/ Oxaliplatin Fluorouracil/ Folinic Acid/ Irinotecan Cisplatin/ Gemcitabine Hydrochloride/ Durvalumab Pembrolizumab/ Lenvatinib	DL7	193	SD	-6.2
26	SCLC	No	3	Carboplatin/ Etoposide Atezolizumab Carboplatin/ Etoposide	DL7	81	PD	55.6

*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. [1]Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. [2]BOR is SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29*) cont.

#N	Indication	MAGEA4/8$^{high\ 1}$	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
27	Syn. Sarcoma	Yes	4	Doxorubicin/ Ifosfamide Doxorubicin/ Ifosfamide Trofosfamide Pazopanib	DL6a	169.4	PD	NA
28	Cut. Melanoma	Yes	4	Bempegaldesleukin/ Nivolumab Talimogene Laherparepvec ICT 01/ Pembrolizumab Other Antineoplastic Agents	DL6a	34	PD	-5.9
29	AdNSCLC	Yes	4	Carboplatin/ Ipilimumab/ Nivolumab/ Pemetrexed Cyclophosphamide/ Interleukin-2/ Tumor-infiltrating Lymphocytes/ Fludarabine Docetaxel/ Nintedanib Cyclophosphamide/ Fludarabine/ T-cells + Interleukin-2	DL6a	66	PD	NA

*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. [1]Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

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