November 2024

NASDAQ: **IDYA**

IDEAYA Biosciences

Improving Lives Through Transformative Precision Medicines

Safe Harbor Statement

Certain statements in this presentation and the accompanying oral commentary are forward-looking statements. These statements relate to future events or the future financial performance of IDEAYA Biosciences, Inc. (the “Company”) and involve known and unknown risks, uncertainties and other factors that may cause the actual results, levels of activity, performance or achievements of the Company or its industry to be materially different from those expressed or implied by any forward-looking statements. In some cases, forward-looking statements can be identified by terminology such as “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “predict,” “potential” or other comparable terminology. All statements other than statements of historical fact could be deemed forward-looking, including expectations regarding the clinical activity profile, potential clinical benefit and potential advantages of the Company’s clinical programs; the translation of preliminary clinical trial results into future clinical trial results; the enrollment of clinical trials; whether the Phase 2/3 clinical trial for evaluation of the darovasertib and crizotinib combination in metastatic uveal melanoma will be considered a registrational trial by the U.S. Food and Drug Administration (the “FDA”); the potentially addressable patient population for the Company’s programs; any expectations regarding the Company’s target discovery platform or new target validation efforts as creating opportunities for research and development initiatives; any projections of financial information, market opportunities, cash runway or profitability, including the estimated funding of operations into 2028; any statements about historical results that may suggest trends for the Company's business; any statements of the plans, strategies, and objectives of management for development programs or future operations; any statements about the timing of preclinical research, clinical development, regulatory filings, manufacturing or release of data; any statements of expectation or belief regarding future events, potential markets or market size, technology developments, or receipt of cash milestones, option exercise fees or royalties; and any statements of assumptions underlying any of the items mentioned. The Company has based these forward-looking statements on its current expectations, assumptions, estimates and projections. While the Company believes these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond the Company's control. Such risks and uncertainties include, among others, the uncertainties inherent in the drug development process, including the Company’s programs’ early stage of development, the process of designing and conducting preclinical and clinical trials, serious adverse events, undesirable side effects or unexpected characteristics of drug development, the regulatory approval processes, the timing of regulatory filings, the challenges associated with manufacturing drug products, the Company’s ability to successfully establish, protect and defend its intellectual property, and other matters that could affect the sufficiency of existing cash to fund operations. These and other important factors may cause actual results, performance or achievements to differ materially from those expressed or implied by these forward-looking statements. The forward-looking statements in this presentation are made only as of the date hereof. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of the Company in general, see the Company's periodic filings with the Securities and Exchange Commission (the "SEC"), including its Annual Report on Form 10-K for the year ended December 31, 2023, its Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, and any current or periodic reports filed with the SEC. Except as required by law, the Company assumes no obligation and does not intend to update these forward-looking statements or to conform these statements to actual results or to changes in the Company's expectations.

Other

This presentation concerns anticipated products that are under clinical investigation and which have not yet been approved for marketing by the FDA. These anticipated products are currently limited by Federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

Certain information contained in this presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and the Company’s own internal estimates and research. The Company has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, the Company's own internal estimates and research have not been verified by any independent source.

IDEAYA Biosciences Highlights

Leading Precision Medicine Oncology Biotechnology Company Advancing Potential First-in-Class Therapies

Broad Pipeline of 5 Clinical Programs with Multiple Target Milestones and Catalysts

PHASE 2/3	PHASE 1/2	PHASE 1	PRECLINICAL
DAROVASERTIB (PKC) • Daro + Crizo (cMET) 1L HLA-A2(-) MUM Registrational Ph2/3 – Over 150 patients enrolled • Daro + Crizo Ph2 in HLA-A2(+) MUM • Ph3 Neoadjuvant UM Registrational Trial – Targeting Study Initiation in H1 2025	**IDE397 (MAT2A)** • Ongoing Phase 2 Expansion in MTAP UC and NSCLC • Late breaker Oral Presentation at ENA 2024 **IDE397 + AMG 193 (PRMT5)** • Ongoing Phase 1 Enrollment • Targeting Expansion in NSCLC in Late 2024 to Early 2025 **IDE397 + Trodelvy® (Trop2-ADC)** • Targeting Expansion in MTAP UC in Q4 2024	**IDE161 (PARG)** • Initial Phase 1/2 Expansion – Q4 2024 **IDE161 + Merck's anti-PD-1, KEYTRUDA® (pembrolizumab)** • Phase 1 FPI in Endometrial Cancer – Q4 2024 **IDE705 / GSK101 (POL THETA)** • Ongoing Phase 1 Dose Escalation **IDE275 / GSK959 (WERNER)** • IND Clearance for Phase 1 Trial in MSI-High Solid Tumors	**NEXT GEN PROGRAMS** • Development Candidate Nominations, including in MTAP and Potential First-In-Class in KAT6 Pathway – Q4 2024 • Nominated IDE034 as B7H3/PTK7 Bi-Specific ADC development candidate and targeting IND submission in 2025

Pharma Collaborations

Pfizer | AMGEN | GILEAD | MERCK | GSK

~$2B in potential milestones

Financials and Investor Relations

~$1.2B to fund operations at least into 2028 [1, 2]

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IND = Investigational New Drug, UM = Uveal Melanoma, MUM = Metastatic Uveal Melanoma, NSCLC = Non Small Cell Lung Cancer, HRD = Homologous Recombination Deficiency, MTAP = methylthioadenosine phosphorylase, UC = Urothelial Cancer

(1) Includes aggregate of $1.2 billion of cash, cash equivalents and marketable securities as of September 30, 2024
(2) IDEAYA's Form 10-Q dated November 4, 2024, as filed with the U.S. Securities and Exchange Commission

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Leading Functional Genomics and Synthetic Lethality Platform

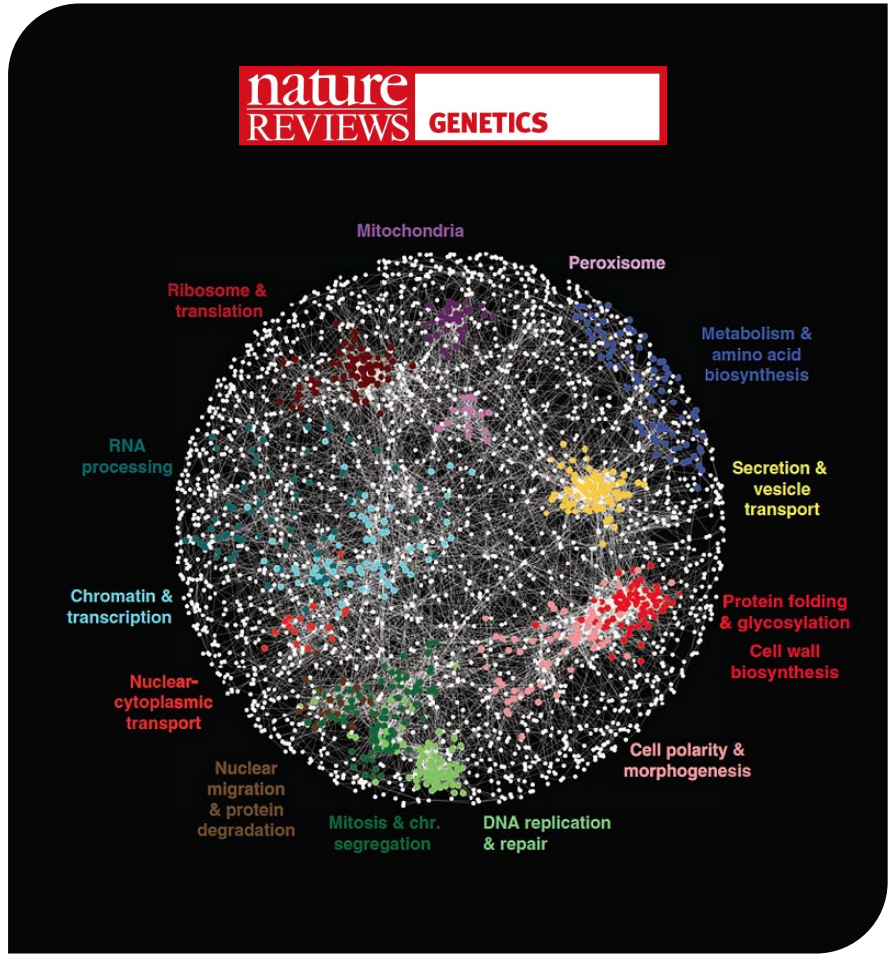
The Next Frontier in Precision Medicine Oncology

Functional Genomics and Synthetic Lethality provides a powerful approach to discover novel precision medicine therapies with patient biomarkers, including MTAP-deletion (~15% of solid tumors), BRCA/HRD (Breast, Prostate, Ovarian, Others), and high-MSI (15% GI Cancers)

Functional genomics combines human genetics with advances in AI and machine learning to develop effective precision medicines

Synthetic lethality occurs when the simultaneous perturbation of two genes results in cell death

Large-scale screening for novel synthetic lethal targets has progressed through advances in molecular biology (e.g., RNA interference, CRISPR-Cas9 editing) and bioinformatics



Nature Reviews Genetics, Vol. 18, 2017, Hieter, et al., as edited by IDEAYA; Image (right) Charles Boone

IDEAYA Precision Medicine Oncology Platform

Fully-Integrated Target, Biomarker, Drug Discovery and Translational Capabilities

Target & Biomarker Discovery and Validation

Bioinformatics, including AI Algorithms

Dual CRISPR, CRISPR, Chemogenomics

Genetically Engineered Models

- Key emerging novel targets identified, such as Werner Helicase, Pol Theta Helicase and PARG
- DECIPHER™ - Dual CRISPR SL Library in DDR Cell Lines in collaboration with UCSD
- PAGEO™ - Paralogous Gene Evaluation in Ovarian in collaboration with Broad Institute
- Machine Learning and Multi-Omics platform

Drug Discovery and Pharmacological Validation

Structure Based Drug Design

Small Molecule Chemistry

Protein Degrader Capabilities

- Crystal structures for SL discovery programs obtained to enable structure-based design
- INQUIRE™ Chemical Library - proprietary, expert-curated small-molecule library
- HARMONY™ Machine-Learning engine empowers drug discovery platform
- Differentiated clinical / candidate compounds discovered, including IDE397, IDE161, IDE705 / GSK101 (Pol Theta Helicase), and IDE275 /GSK959 (Werner Helicase)

Translational Research and Opportunity Expansion

Genomics – DNA and RNA Analysis

Proteomics – Protein Expression Profiling

Tissue (IHC, IF) and Liquid Biopsies Analysis

- Translational research to define clinical biomarkers and transformative combinations
- Opportunity expansion through broad cell panel screening
- Pharmacodynamic biomarker analysis to confirm target modulation and correlation with clinical activity

IDEAYA Functional Genomics and Synthetic Lethality Platform

Novel Target and Biomarker Discovery and Validation

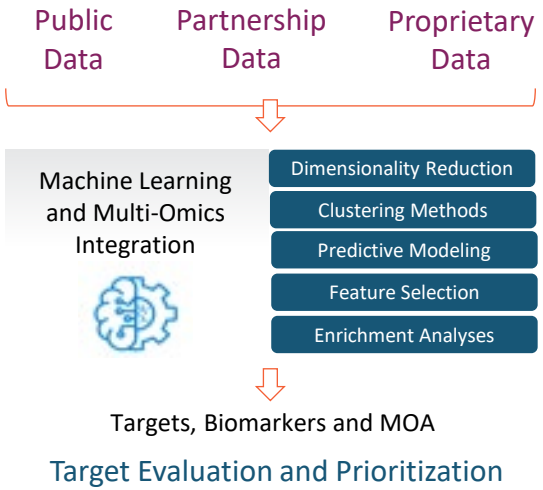
Target and Biomarker Discovery & Validation Platform

IDEAYA Functional Genomics Platform integrates proprietary and public data sets with orthogonal and complementary content

Bioinformatic analysis enables identification and validation of synthetic lethal target / biomarker interactions across vast datasets

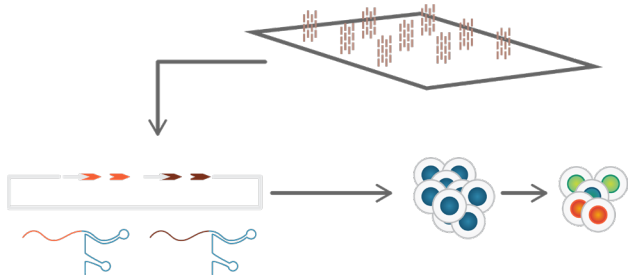
Robust SL interactions validated genetically (Dual CRISPR, paralogues, isogenic pairs, CRISPR/siRNA), pharmacologically and *in vivo*

Data-to-Knowledge Enterprise fueled by multi-omic patient and molecular data across public, partnership and proprietary data sets via IDEAYA Bioinformatics Platform



DECIPHER™

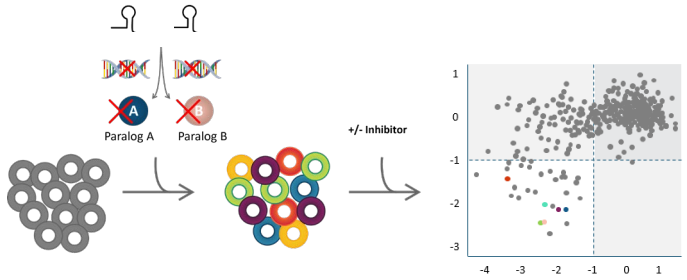
Dual CRISPR SL Library in DNA Damage Repair (2)



Evaluation of DNA Damage Targets synthetic lethal with tumor suppressor or oncogenes

PAGEO™

Paralogous Gene Evaluation in Ovarian Cancer (1)



Evaluation of SL targets in context of functionally redundant paralogous genes in ovarian cancer

Partnership Datasets

depmap portal | FOUNDATIONINSIGHTS™

Public Databases

TCGA | BioPortal | CCLE | PROJECTGENIE | Project Achilles | MSK-IMPACT™

(1, 2) IDEAYA Proprietary Libraries and Datasets – Strategic Collaborations with Broad Institute(1) and UC San Diego(2)

IDEAYA Precision Oncology Drug Discovery Platform & IND Engine

AI/ML & Structure Based Drug Design to Deliver Potential First-in-Class Development Candidates

Structural Biology & Structure Based Drug Design

Full suite of capabilities in structural biology, biophysics, & computational chemistry

Ligand bound co-crystal structures resolved to enable Structure Based Drug Design for each of the Synthetic Lethality drug-discovery programs

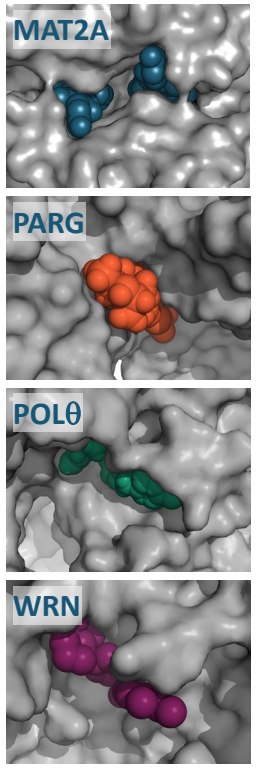
Multiple potential "first-in-world" co-crystal structures resolved, including for PARG, Pol Theta Helicase and Werner Helicase

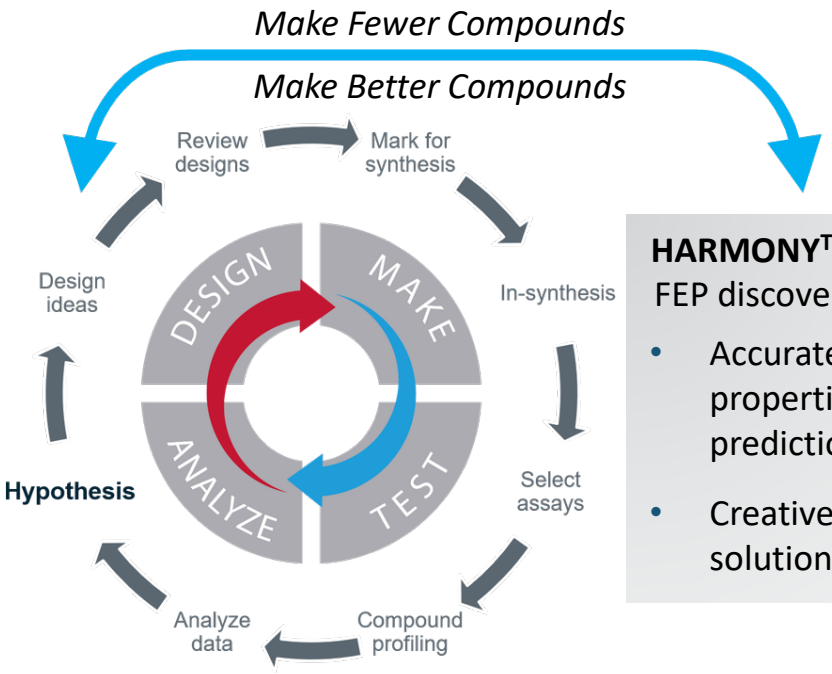
INQUIRE™ Proprietary Chemical Library

Expert-curated HTS library to enhance hit discovery capabilities against novel SL targets classes

Enhances IDEAYA's SL Drug Discovery Platform and competitive differentiation

AI/ML Enabled Computational Drug Discovery*





HARMONY™ ML and FEP discovery engine

- Accurate properties prediction
- Creative design solutions

AI/ML to Accelerate Time to IND for Potential First-in-Class DCs

*HARMONY™ ML: IDEAYA proprietary AI/Machine Learning platform designed to enable computational drug discovery and lead optimization

IDEAYA's Potential First-in-Class Precision Medicine Oncology Pipeline

	Modality/Indication	Biomarker	Pre-clinical / IND Enabling / Phase 1 / Phase 2 / Potential Registrational	Program Goals / Achievements	Collaborations	Commercial (IDEAYA)
Darovasertib *PKC*	+cMET[1] Combination 1L HLA-A2(-) MUM	GNAQ/11	Phase 2	Phase 2 (AA) / Phase 3 registrational trial ^ – Over 150 patients enrolled	Pfizer (1)	WW Commercial Rights
	(Neo)Adjuvant UM	GNAQ/11	Phase 2 → Potential Registrational	Ph 3 Neoadjuvant UM registrational trial ^^ – Targeting study initiation in H1'25		
	cMET[1] Combination HLA-A2(+) MUM	GNAQ/11	Phase 2	HLA-A2(+) Phase 2 clinical trial ^^^	Pfizer (1)	
IDE397 *MAT2A*	Monotherapy Solid Tumors	MTAP	Phase 2	Phase 2 expansion in MTAP urothelial and lung cancer		WW Commercial Rights
	Combination Solid Tumors	MTAP	Phase 1 → Phase 2	Targeting IDE397 + AMG 193 (PRMT5i^{MTA}) expansion in NSCLC in late 2024 to early 2025	AMGEN (2)	
	Combination Urothelial Cancer	MTAP	Phase 1	Targeting Phase 1/2 IDE397 + Trodelvy® combination expansion – Q4'24	GILEAD (3)	
IDE161 *PARG*	Monotherapy Solid Tumors	HRD	Phase 1 → Phase 2	Phase 1/2 expansion in priority tumor types (Breast, CRC, Endometrial, Prostate) – Q4'24		WW Commercial Rights
	Combination Endometrial Cancer	High-MSI, MSS	Phase 1 → Phase 2	Phase 1 IDE161 + KEYTRUDA FPI – Q4'24	MERCK (4)	
IDE705 (GSK101) *Pol Theta Helicase*	+Niraparib Combo Solid Tumors	HR Mutations	Phase 1 → Phase 2	Ongoing Phase 1 dose escalation	GSK (5)	Global Royalties
IDE275 (GSK959) *Werner Helicase*	Solid Tumors	High-MSI	Phase 1	Earned $7M Milestone for IND Clearance for Phase 1 Trial in MSI-High Solid Tumors	GSK (5)	50% US Profits and 20% costs
IDE034 *TOP1i BsADC*	Solid Tumors	B7H3/PTK7	Pre-clinical → IND Enabling	Nominated IDE034 as development candidate Targeting IND Submission – 2025	BIOCYTOGEN (6)	WW Commercial Rights
Platform	Solid Tumors	Defined Biomarkers	Pre-clinical → IND Enabling	Targeting Multiple DCs, including in MTAP and potential first-in-class in KAT6 pathway – Q4'24		WW Commercial Rights

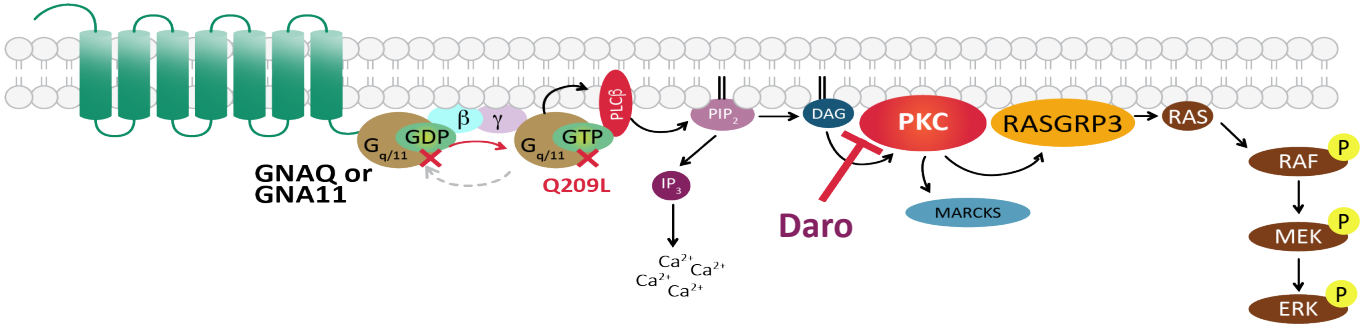
^ Integrated Phase 2/3 enables potential Accelerated Approval (AA, Phase 2) and potential Full Approval (Phase 3) based on FDA Type C Meeting Q1 2023 , ^^ Phase 3 randomized registrational trial enables potential approval based on FDA Type C Meeting Q3 2024,
^^^ Targeting enrollment of additional HLA-A2(+) patients in ongoing IDE196-001 Phase 2 clinical trial
(1) Pursuant to Pfizer Clinical Trial Collaboration and Supply Agreements for Darovasertib/Crizotinib Combination; IDEAYA retains all Darovasertib Commercial Rights
(2) Pursuant to Amgen Clinical Trial Collaboration and Supply Agreement for IDE397 + AMG 193, an investigational MTA-cooperative PRMT5 inhibitor; Amgen is the sponsor the study and the parties jointly share external costs of the study
(3) Pursuant to Gilead Clinical Study Collaboration and Supply Agreement for IDE397 + Trodelvy®, a Trop-2 directed antibody-drug conjugate (ADC); the Company will sponsor the study and Gilead will provide Trodelvy at no cost. Gilead retains all commercial rights to Trodelvy.
(4) Pursuant to Merck Clinical Trial Collaboration and Supply Agreement for IDE161 + Keytruda®, an anti-PD-1 therapy; the Company will sponsor the study and Merck will provide Keytruda at no cost
(5) Pursuant to GSK Collaboration, Option and License Agreement: Polθ: Global Royalties; WRN: 50/50 US Profits + ex-US Royalties
(6) Pursuant to exclusive worldwide licensing and option agreement with Biocytogen
MAT2A=methionine adenosyltransferase 2a, MTAP=methylthioadenosine phosphorylase, MTA=methylthioadenosine, PRMT5=protein arginine methyltransferase 5 (PRMT5), PARG= poly (ADP-ribose) glycohydrolase, WRN = Werner Helicase, Polθ = DNA Polymerase Theta, HRD = homologous recombination deficiency, MSI = microsatellite instability, PKC = protein kinase C, MUM = metastatic uveal melanoma, UM = uveal melanoma, Crizo = crizotinib, NSCLC = non-small cell lung cancer, WW = worldwide, HLA-A2(-) = HLA-A2*02:01 Negative; HLA-A2(+) = HLA-A2*02:01 Positive, DC = development candidate, TOP1i = topo-I-payload, BsADC = bispecific antibody drug conjugate

= Target Program Milestones

Darovasertib – Potential to Broadly Impact Uveal Melanoma

Potential First-in-Class and Best-in-Class in (Neo)adjuvant UM and Metastatic UM

Mutations in GNAQ / GNA11 activate PKC Signaling, a genetic driver of Uveal Melanoma



Darovasertib is an oral, potent and selective PKC inhibitor

GNAQ or GNA11 (~95%) and other upstream mutations activate PKC signaling in UM and MUM patients

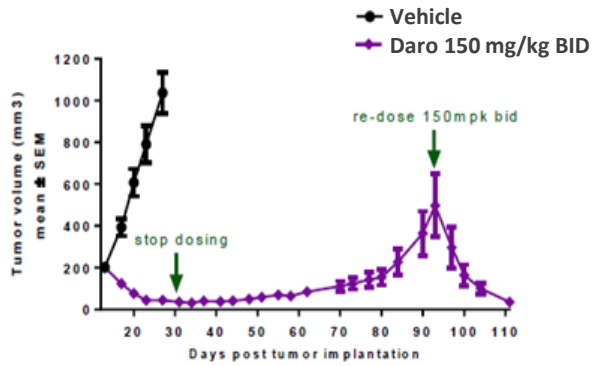
UM is typically treated with radiation and/or enucleation, with no approved systemic therapies for Neoadjuvant UM

MUM occurs in approximately 50% of UM patients and predominantly as liver metastasis in ~90% of MUM patients, with no approved therapies for HLA-A*02:01 negative MUM

Daro Mono Rationale in Primary UM

Single Agent Daro Induces Tumor Regression

Uveal Melanoma Xenograft (92.1 mutant GNAQ)

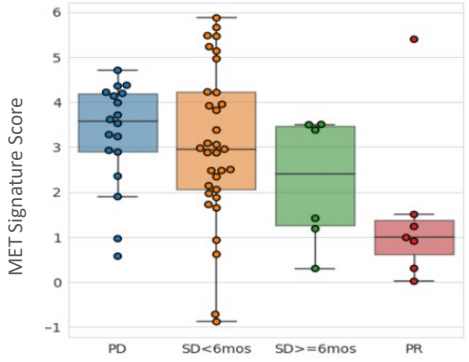


Van Raamsdonk, CD, et. al, Nature 2009; Van Raamsdonk CD, et. al, NEJM 2010; Piperno-Neumann S, et. al, J Clin Oncol 2014

Daro + Crizo Combo Rationale for Use in Metastatic Uveal Melanoma (MUM)

Pfizer+

Daro Phase 1 Monotherapy Efficacy Association with cMET Expression

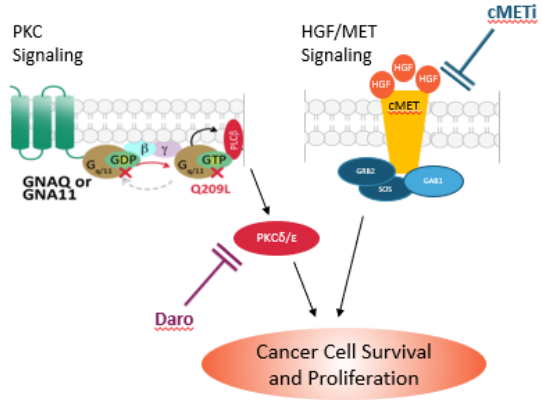


Ph 1 Clinical Outcomes

PD=Progressive Disease, SD=Stable Disease, PR=Partial Response

IDEAYA Data, AACR 2021

Activation of PKC and cMET Pathways with Observed cMET Overexpression in MUM Liver Metastases



+ Pfizer Clinical Trial Collaboration and Supply Agreements for Darovasertib + Crizotinib Combination in MUM

IDEAYA owns or controls all commercial rights in darovasertib, including in Primary UM and MUM

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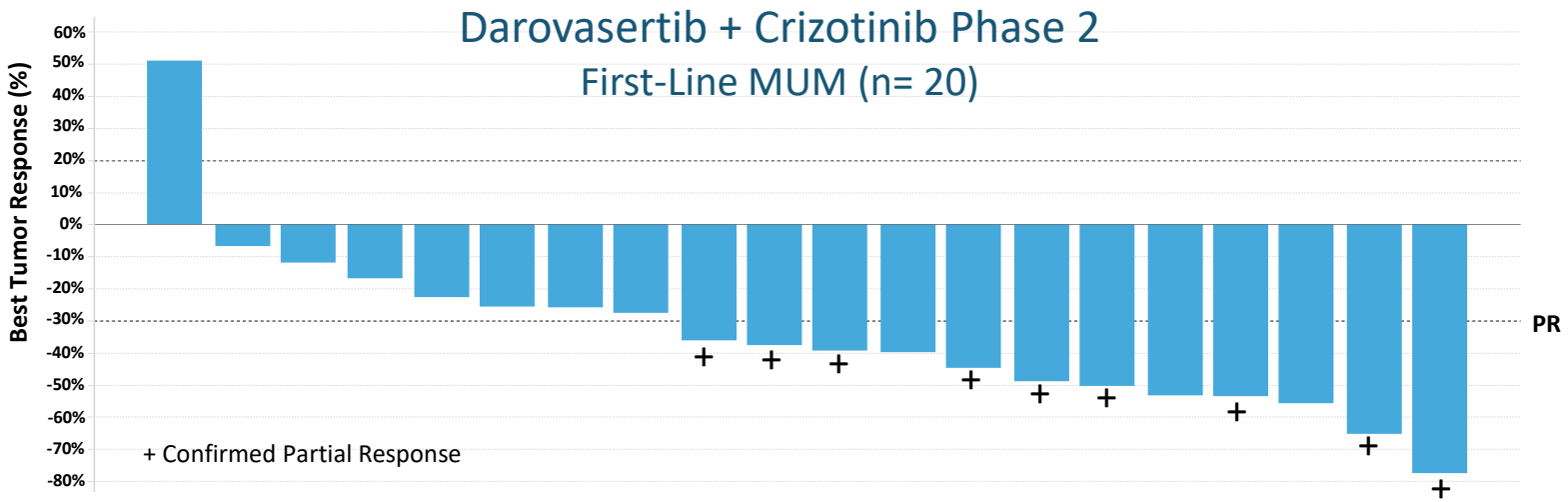
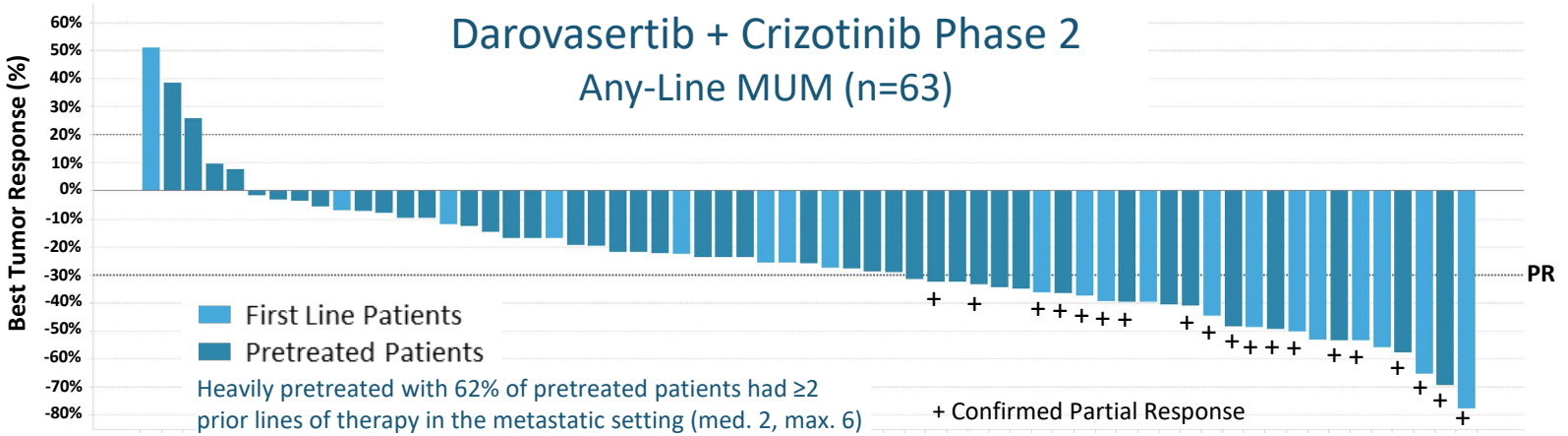
Daro + Crizo Phase 2 Efficacy: First-Line MUM and Any-Line MUM

Compelling Overall Response Rate (ORR) by RECIST 1.1 Observed





Confirmed 45% ORR and 90% DCR

Response by RECIST 1.1 First-Line MUM	Evaluable (N=20)
Confirmed ORR (9/20)	45%
Tumor Shrinkage (19/20)	95%
>30% Tumor Shrinkage (12/20)	60%
Best Overall Response	
cPR (9/20)	45%
SD (9/20)	45%
DCR (18/20)	90%

Confirmed 30% ORR and 89% DCR

Response by RECIST 1.1 Any-Line MUM	Evaluable (N=63)
Confirmed ORR (19/63)	30%
Tumor Shrinkage (58/63)	92%
>30% Tumor Shrinkage (27/63)	43%
Best Overall Response	
cPR (19/63)	30%
SD (37/63)	59%
DCR (56/63)	89%

ESMO 2023 Proferred Presentation M McKean et al: preliminary analysis of unlocked database as of 8/22/2023 by investigator review, C1D1 cutoff as of 9/22/2022, based on 20 evaluable 1L MUM patients and 63 evaluable Any-Line (includes 1L and 2L+/pre-treated) MUM patients

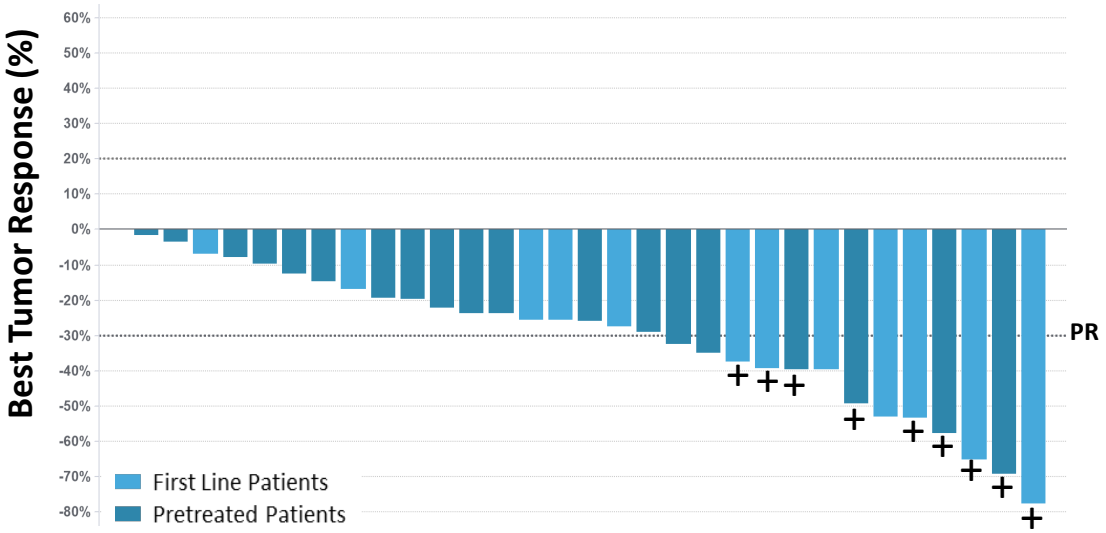
ORR = Overall Response Rate; DCR = Disease Control Rate; cPR = Confirmed Partial Response; uPR = Unconfirmed Partial Response; SD = Stable Disease

Daro + Crizo Phase 2 Efficacy: HLA-A2-Negative and HLA-A2-Positive MUM

Clinical Combination Observes Clinical Efficacy Irrespective of HLA-A2 Status

HLA-A2 Negative (n=31)

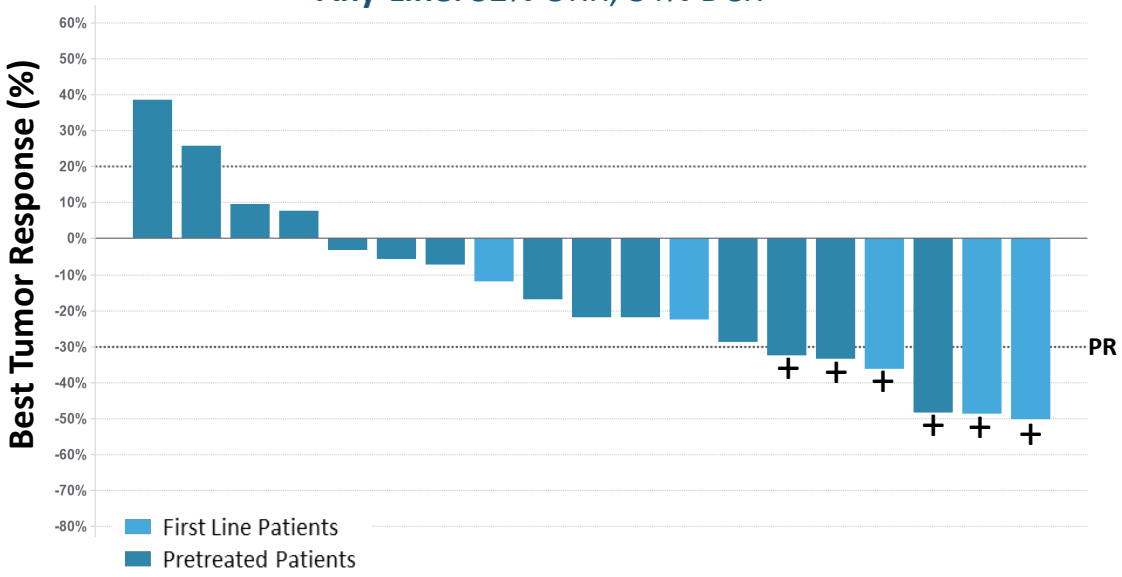
First-Line: 42% ORR; 100% DCR
Any-Line: 29% ORR; 94% DCR



+ Confirmed Partial Response

HLA-A2 Positive (n=19)

First-Line: 60% ORR; 100% DCR
Any-Line: 32% ORR; 84% DCR



+ Confirmed Partial Response

ESMO 2023 Proferred Presentation M McKean et al : preliminary analysis of unlocked database as of 08/22/2023 by investigator review; data cutoff based on treatment Day 1 of Cycle 1 (C1D1) as of 9/22/2022

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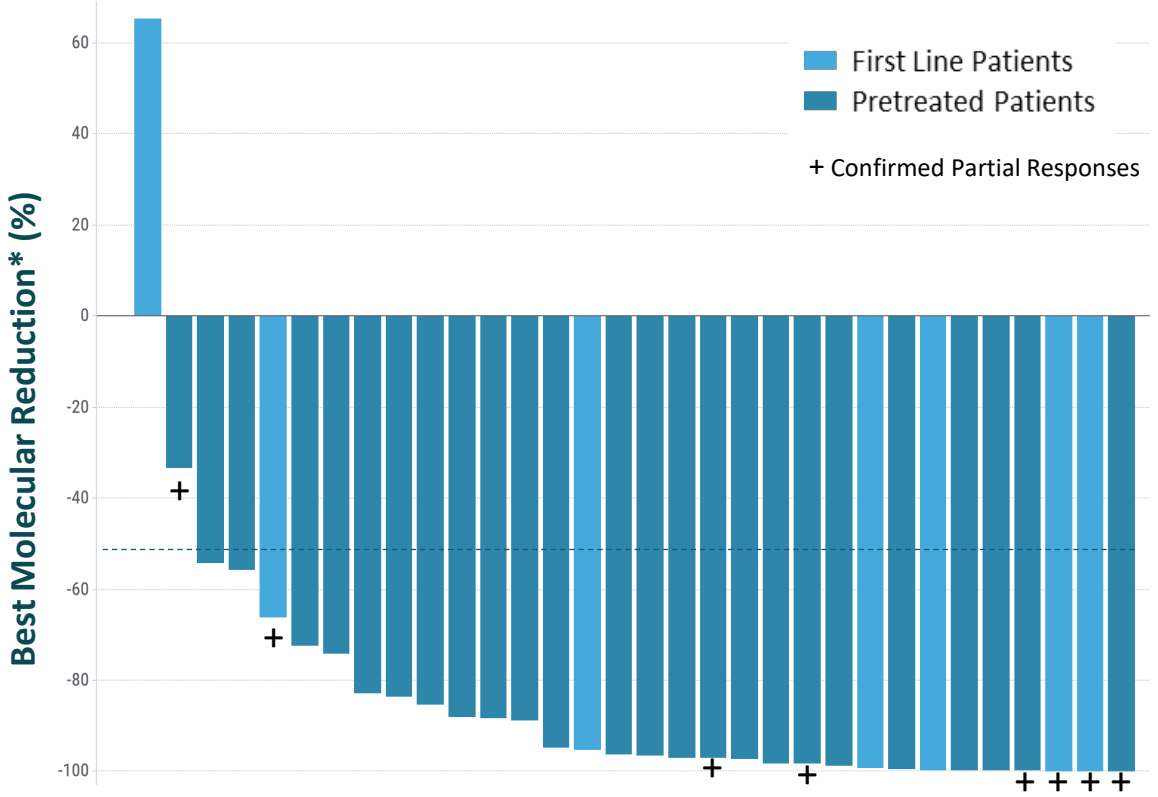
Oral Presentation

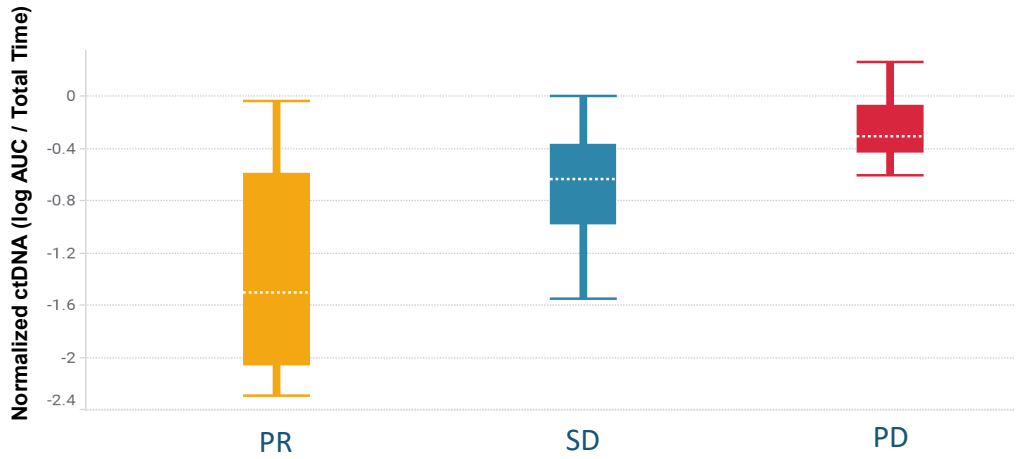
Observed 94% ctDNA Molecular Response Rate with Deep & Sustained MRs*

Any-Line MUM Patients Treated with the Darovasertib + Crizotinib Combination

Molecular Response Regardless of BAP1 Mutation



Molecular Response Correlates with RECIST Response ^



High ctDNA Molecular Response Rate of 94% in Any-Line MUM

Deep and Sustained MRs with approximately 80% of patients showing >80% reduction in MAF

ctDNA MRs correlate with Clinical Efficacy (PR, SD, PD) by RECIST

ESMO 2023 Proferred Presentation M McKean et al: Preliminary analysis of unlocked database as of 08/22/2023 by investigator review; data cutoff based on treatment Day 1 of Cycle 1 (C1D1) as of 9/22/2022

*Molecular response (MR) defined as at least 50% reduction in percentage of Mean Allele Frequency (MAF) at any timepoint

^ Best Overall Response

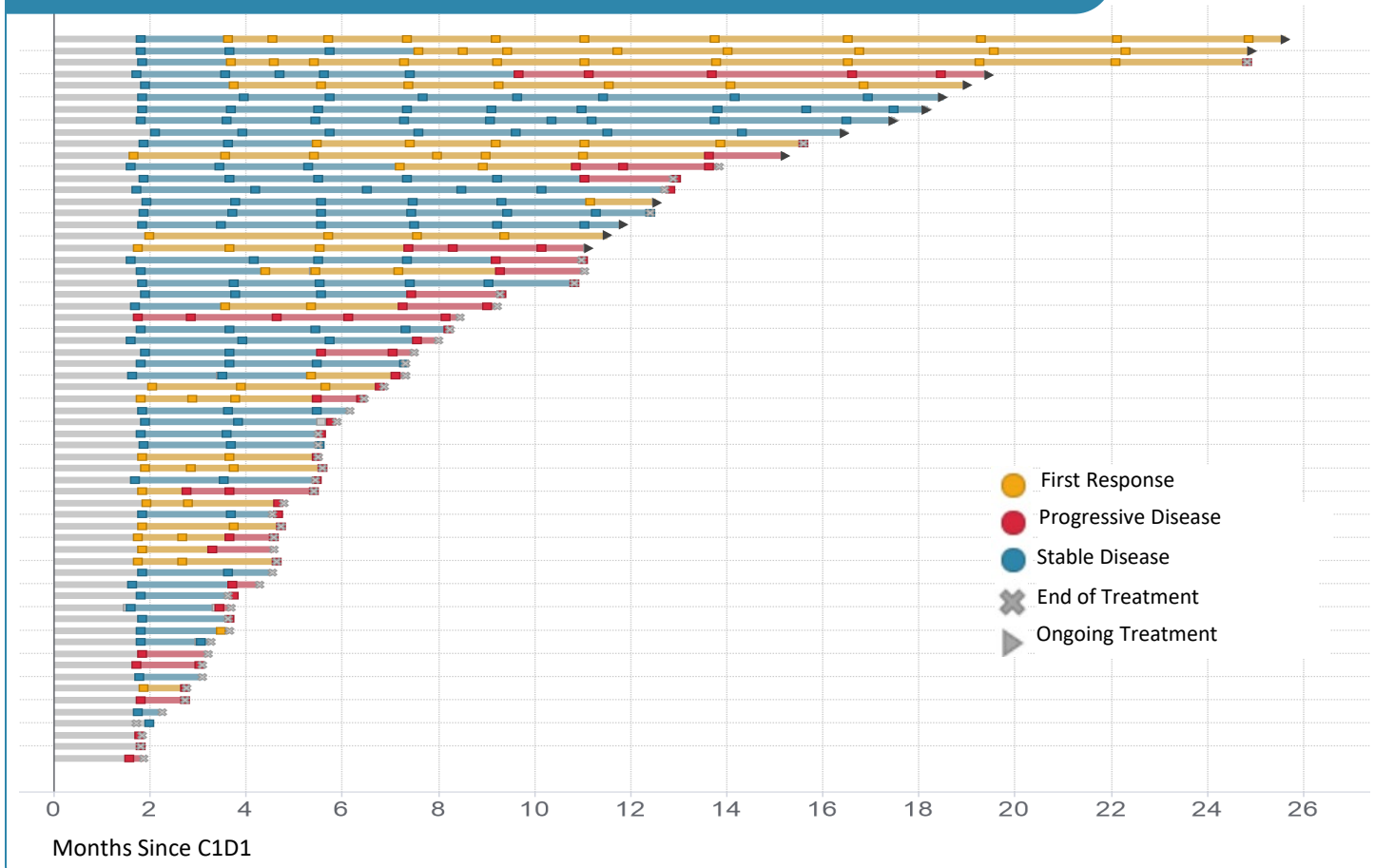
MADRID 2023 ESMO congress

Oral Presentation

Median PFS in First-Line, Any-Line and Hepatic-Only MUM

Observed Compelling Median Progression Free Survival with Encouraging Trend

Any-Line MUM Swimlane Plot



Darovasertib + Crizotinib Phase 2

Median Progression Free Survival

- First-Line (n=20): 7.1 months
- Any-Line (n=63): 6.8 months
- Hepatic-Only (n=19): 11.0 months

Treatment Duration – Observations

- ~50% of patients treated > 6 months
- ~30% of patients treated > 1 year

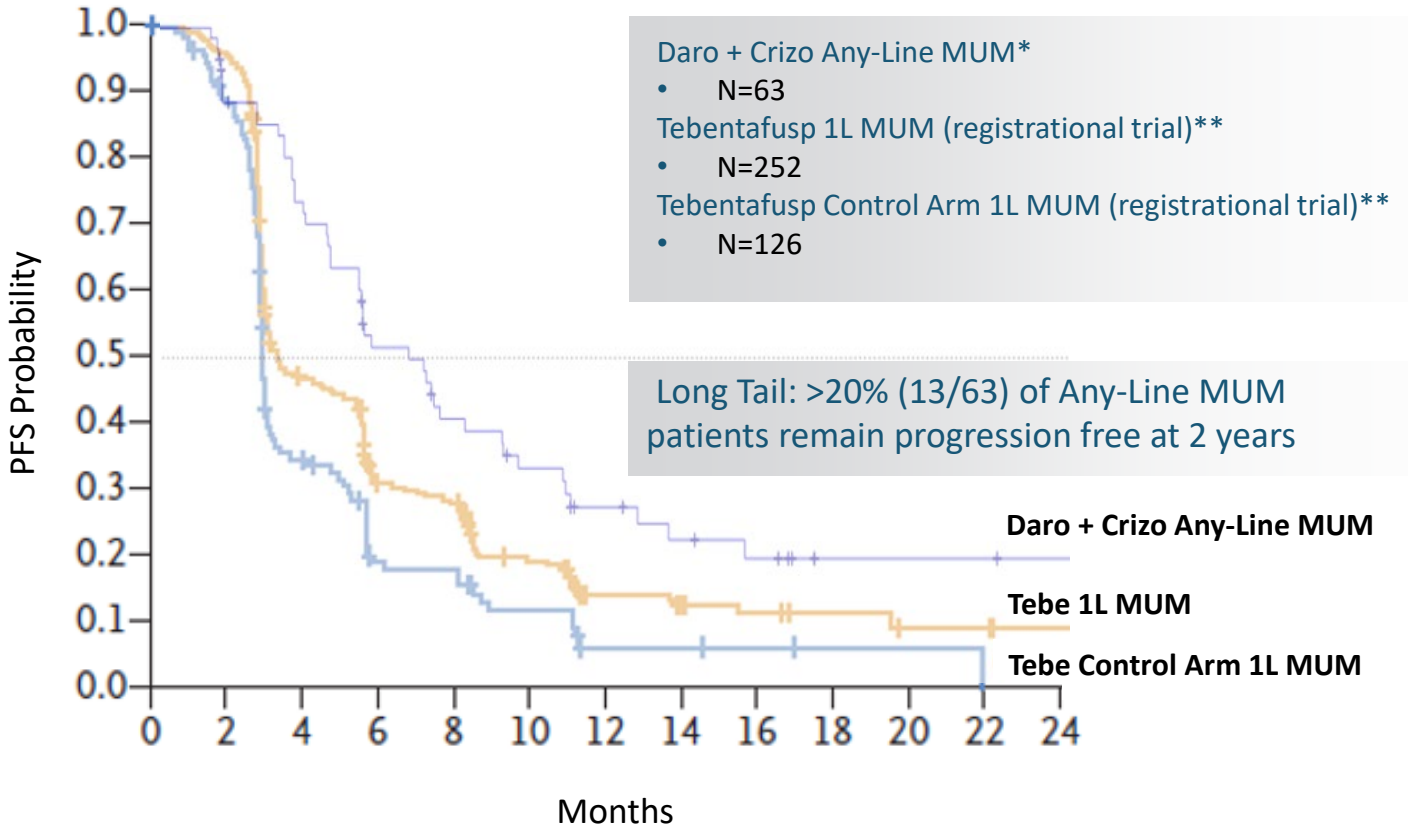
ESMO 2023 Proferred Presentation M McKean et al: Preliminary analysis of unlocked database as of 08/22/2023 by investigator review, C1D1 cutoff as of 9/22/2022, based on 63 evaluable Any-Line MUM patients

IDEAYA BIOSCIENCES

2-Year PFS Kaplan Meier (KM) Curve: Daro + Crizo in Any-Line MUM*

Daro + Crizo Combo Observes a Promising 2-Year PFS KM Curve and a “Long Tail” Effect

2-Year PFS Kaplan Meier Curves in MUM



Daro + Crizo Any-Line MUM*
- N=63

Tebentafusp 1L MUM (registrational trial)**
- N=252

Tebentafusp Control Arm 1L MUM (registrational trial)**
- N=126

Long Tail: >20% (13/63) of Any-Line MUM patients remain progression free at 2 years

* IDEAYA Data: preliminary analysis of unlocked database as of 08/22/2023 by investigator review, C1D1 cutoff as of 9/22/2022, based on 63 evaluable Any-Line MUM patients. Direct comparisons are not being made and the historical data for tebentafusp is being shared for informational purposes only

** N Engl J Med 2021;385:1196-206; Tebentafusp Phase 3 registrational trial, PFS curves

Darovasertib + Crizotinib Combination Clinical Summary in MUM

Highly Differentiated Clinical Efficacy & AE Profile Observed[+, ++]

	Darovasertib + Crizotinib	Cabozantinib Mono / Crizotinib Mono	Selumetinib + DTIC	Ipi + Nivo	Tebentafusp
Target / Mechanism	PKC + cMET	cMET	MEK + Chemotherapy	CTLA4 + PD1	HLA-A2-0201 Bi-Specific
Study Name(s)	NCT03947385	A091201^ / NCT05063058 ^^^^	NCT01974752^^^	NCT02626962[##]	IMCgp100-102[#]
Population	1L/2L/3L+ MUM (n=63)	1L+ MUM (n=31) / 1L (n=6) 2L (n=1) MUM	1L+ MUM (n=97)	1L MUM (n=52)	2L+ MUM (n=127)
Patient Selection	NA	NA / MET Overexpression	NA	NA	HLA-A2-positive
Drug Form	Oral Tablets	Oral Capsules	Oral Capsules + chemo	IV infusion	IV Infusion (Weekly)
Tolerability (Grade ≥3 Drug-Related AE)	31%	51.6% / NA	63% (All Cause)	58%	46.5%
% of Patients with Tumor Shrinkage	First-Line = 95% / Any-Line = 92% / Hepatic Only = 100%*	23% ^^ / NA	35% ^^	27% ^^	44% ^^
Confirmed ORR% (by RECIST 1.1)	**First-Line = 45% / Any-Line = 30% / Hepatic Only = 37%***	**0% / 0%**	**3%**	**11.5% (not confirmed ORR)**	**4.7%**
Median PFS	**First-Line: 7.1 months / Any-Line: 6.8 months / Hepatic-Only: 11.0 months***	**2 months / NA**	**2.8 months**	**3 months**	**2.8 months**

+ Cross-trial comparisons are not based on head-to-head studies and are presented for informational purposes; no direct comparisons are being made

++ ESMO 2022: F. Dimitriou, et. al: IPI + Nivo Combo in HLA-A2-0201 MUM reports ~6% ORR (2 PRs out of 33 patients)

* ESMO 2023 Proferred Presentation M McKean et al: Preliminary analysis of unlocked database as of 08/22/2023 by investigator review; data cutoff based on treatment Day 1 of Cycle 1 (C1D1) as of 9/22/2022

Based on Immunocore reported 2L+ study data (to reflect comparative patient population) and by independent review and ORR% was with confirmed PRs; ## ASCO 2021, J. Piulats, et. Al, Ipi = ipilimumab, nivo = nivolumab, ORR% did not require PR/CR confirmation

^ Randomized Phase II Trial and Tumor Mutational Spectrum Analysis from Cabozantinib versus Chemotherapy in Metastatic Uveal Melanoma (Alliance A091201); Clin Cancer Res 2020;26:804–11

^^ Estimated from Waterfall plot

^^^ Journal of Clinical Oncology, Carjaval, et. al, 2018; 1232-1239; ^^^^ European Journal of Cancer, Leyraz, et. al, 2022; 146-155

IDEAYA BIOSCIENCES

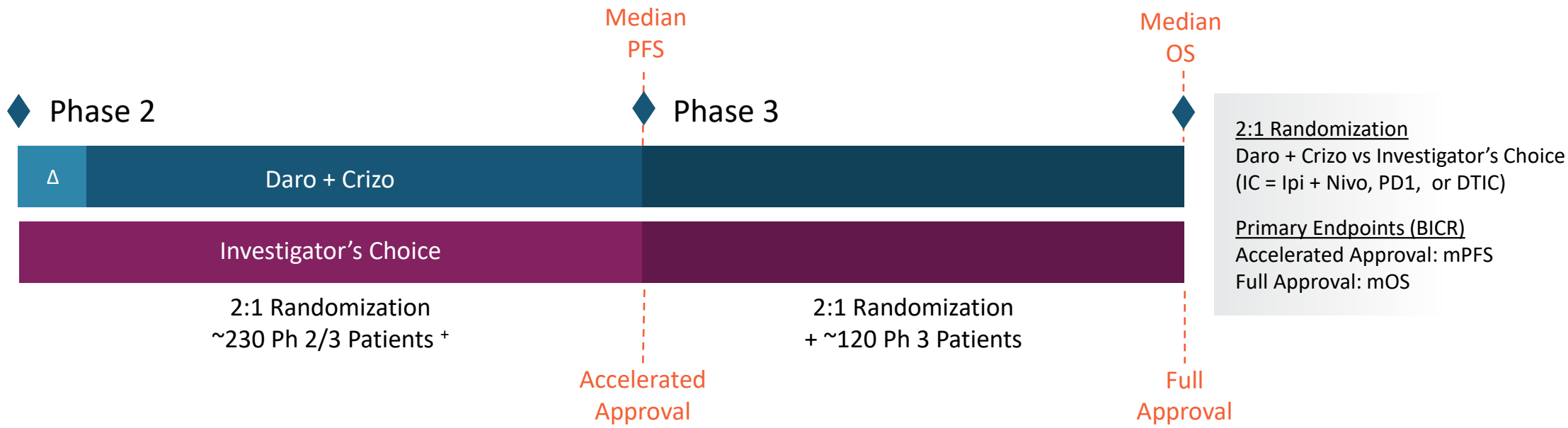
Accelerated Approval Trial Design in First-Line HLA-A2 Negative MUM

FDA Guided Design: Open Label Ph2/3 Evaluation of Daro + Crizo vs. Investigator's Choice ^

FDA Project FrontRunner: Target First-Line approval strategy to enhance patient benefit in MUM

FDA Accelerated Approval: Address unmet need in MUM, which has limited effective treatment options

Integrated Phase 2/3 Study within Study Enables Potential Accelerated Approval & Full Approval



FDA Fast Track and EMA SME Status Designation for Daro + Crizo in MUM

Δ Nested study to confirm move forward dose: (i) Daro 300 mg BID + Crizo 200 mg BID or (ii) Daro 200 mg BID + Crizo 200 mg BID

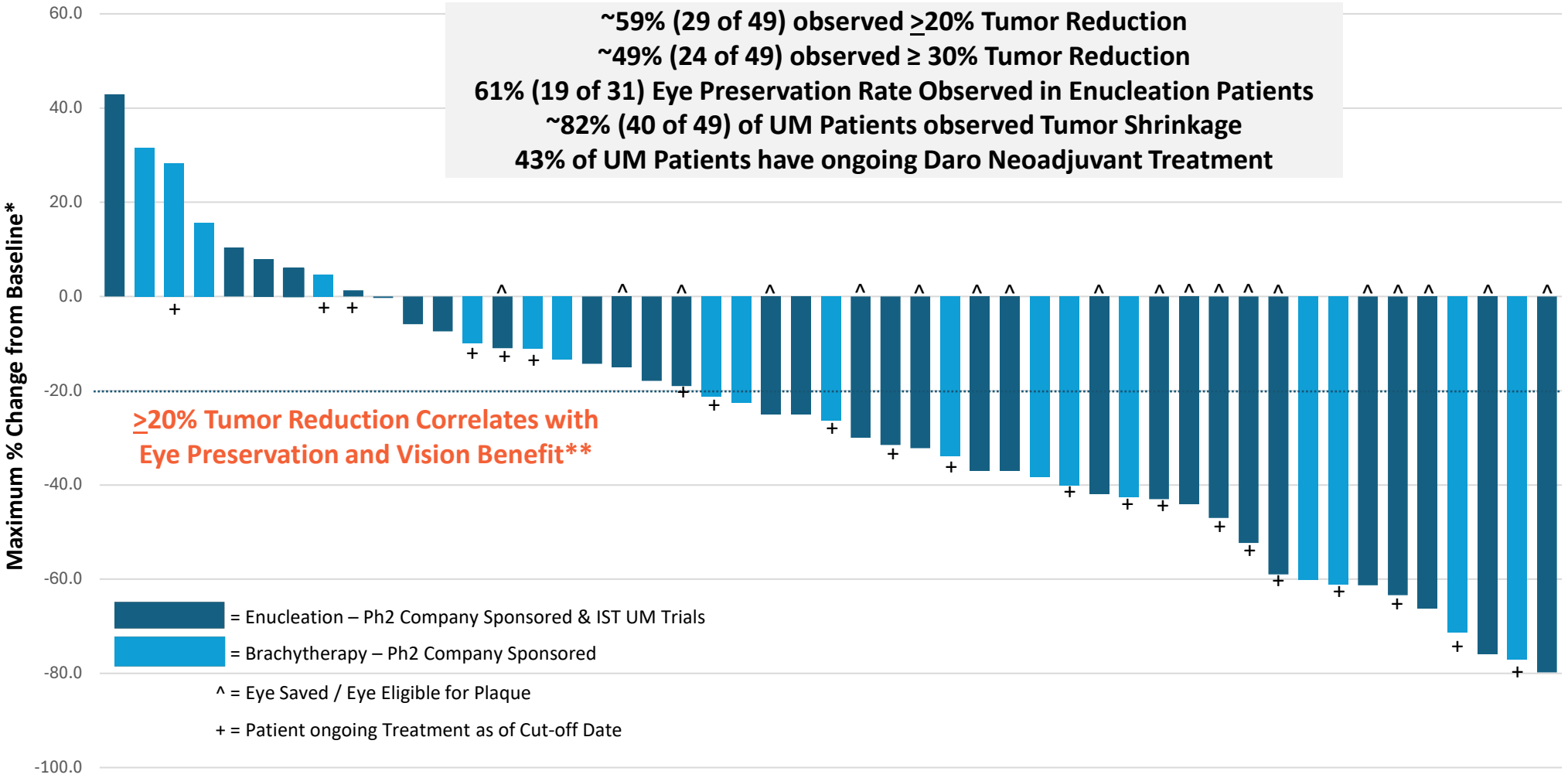
+ Phase 2 study contemplates data set of n=200 patients randomized 2:1 with treatment arm at move forward dose in support of potential accelerated approval based on mPFS

Daro = Darovasertib, Crizo = Crizotinib, MUM=Metastatic Uveal Melanoma, HLA-A2 = HLA-A2*02:01 Serotype, IC = Investigator's Choice, Ipi = ipilimumab, nivo = nivolumab; DTIC = dacarbazine

^ Clinicaltrials.gov: NCT05987332

Darovasertib Neoadjuvant Therapy: Ph2 Company Sponsored & Ph2 IST UM Trials

61% (19 of 31) Observed Eye Preservation and 49% (24 of 49) with ≥30% Tumor Reduction*

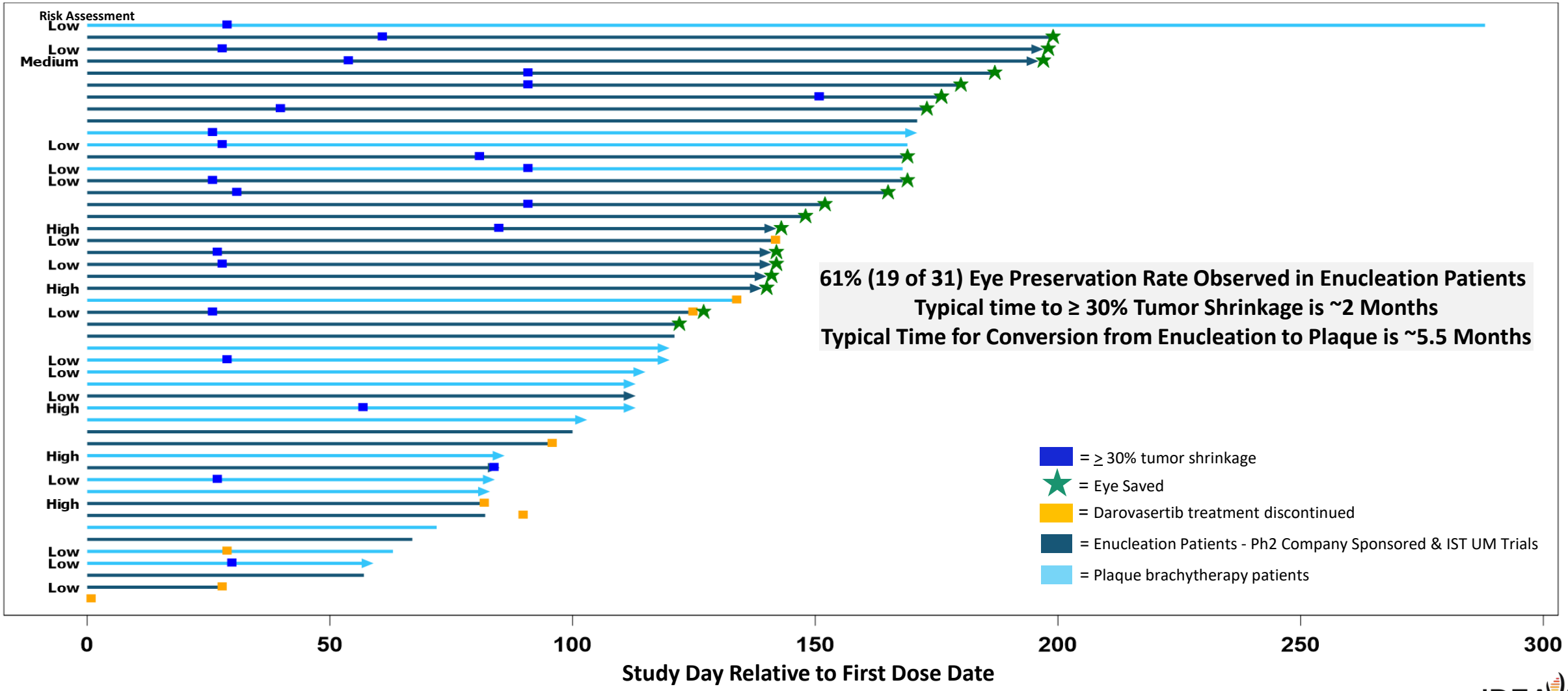


Clinical Efficacy (n=49)	
Evaluable Patients, n	49
% Tumor Reduction, by Product of Diameters measurements, n, (%)	
≥ 20% Reduction	29 (59%)
≥ 30% Reduction	24 (49%)
Eyes Preserved in Enucleation Pts, n, (%)	19/31 (61%)

IDEAYA Data: Enrollment cut-off date of 13May24, and results as of 15Aug2024 (based on preliminary analysis of unlocked database for Ph2 company sponsored patients enrolled up to 13May2024); Ph2 IST as of 14May2024 [ASCO 2024 Oral Presentation]
*Ocular tumor size measured by the product of diameters (longest basal diameter x tumor thickness); **Based on clinical data correlating ocular tumor shrinkage with eye preservation and vision from darovasertib treatment in UM. Clinical data provided in FDA briefing book for FDA Type C meeting

Darovasertib Neoadjuvant Therapy: Ph2 Company Sponsored & Ph2 IST UM Trials

Swimlane Plot (n=49)*



*Phase 2 company-sponsored neoadjuvant UM data as of 15Aug2024 (based on preliminary analysis of unlocked database for patients enrolled up to 13May2024); Low/ Medium/ High Overall Risk Assessment is listed where available; green star represents patients with eyes saved or eligible to be saved; timing is not known for all patients. Blue box represents earliest timepoint to ≥ 30% tumor shrinkage.

2024 ASCO ANNUAL MEETING
Oral Presentation

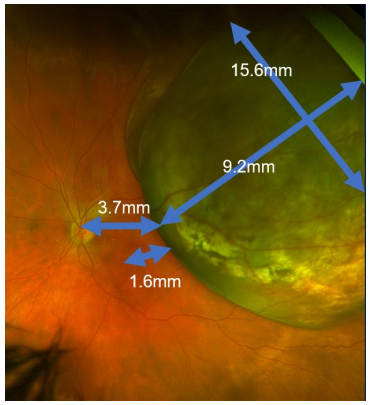
Phase 2 Darovasertib Neoadjuvant UM IST Results in Enucleation Patients

Pre & Post Darovasertib Treatment Radiation Plaque Planning and Vision Implications

Baseline & Post Baseline Measurements

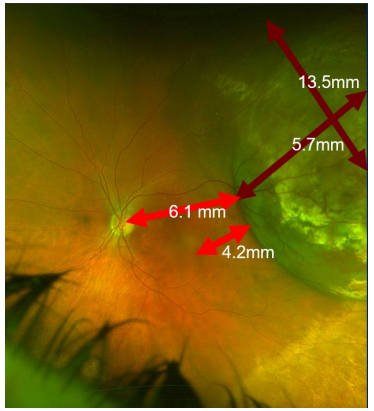
Baseline Tumor Size Measurements

- Distance of tumor to optic nerve and fovea are 3.7 mm and 1.6 mm respectively



Post Baseline Tumor Size Measurements

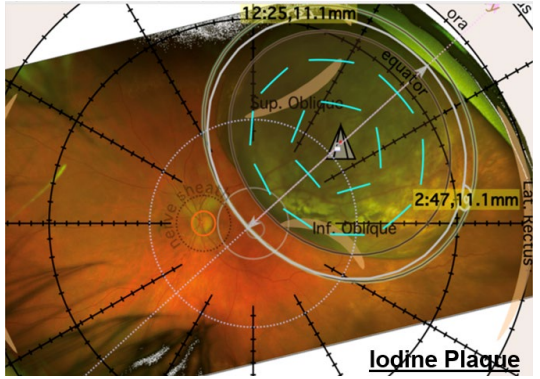
- Distance to tumor from optic nerve and fovea increased by ~65% and ~163% respectively



Plaque Treatment Plan

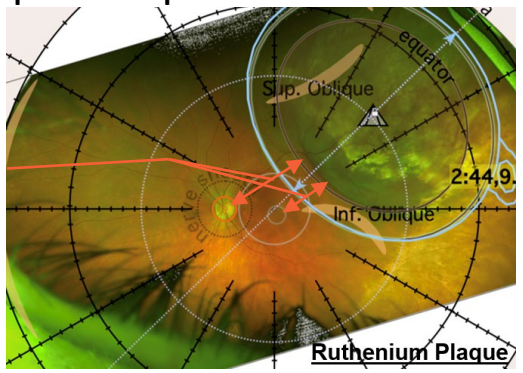
Baseline Plaque Size Requirements

Patient requires an Iodine plaque at Baseline



Post-Baseline Plaque Size Requirements

Increased distance to critical structures and tumor enables smaller Ruthenium plaque (less radiation)



Reduced Radiation to Critical Structures & Potential Improvement in Vision*

	Baseline	Post Baseline	Change
Dose to nerve	78 Gy	13 Gy	-83%
Dose to fovea	157 Gy	59 Gy	-62%
1-year probability of visual loss	~67%	~20%	-
3-year probability of visual loss	~95%	~43%	-

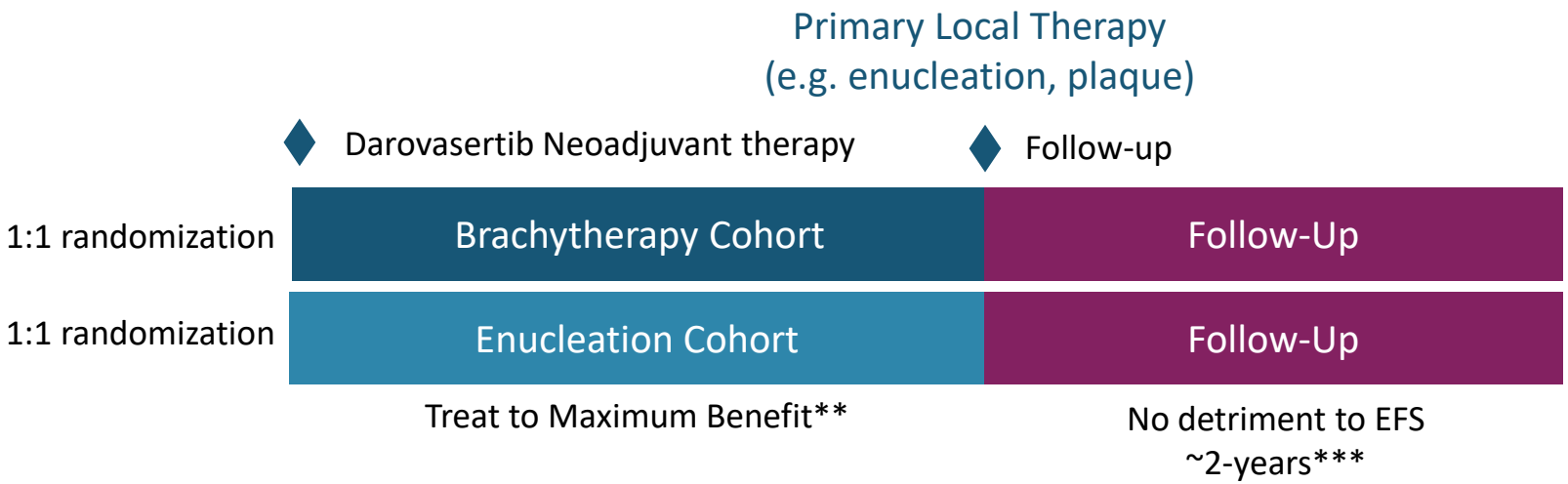
Adapted from A Joshua, ASCO 2024, NADOM Investigator Sponsored Trial (IST): NCT05187884
Slides courtesy of Dr Rod O'Day and Lotte Fog

* Aziz et al., 2016 (Visual acuity of 20/200 or worse)

IDEAYA BIOSCIENCES

Darovasertib Neoadjuvant UM Phase 3 Trial Design for Regulatory Approval

Paradigm Shifting Opportunity to Save the Eye and Protect Vision



Primary Endpoints*

- Cohort 1: Time to Vision Loss
- Cohort 2: Eye Preservation

Secondary Endpoints

- Cohort 1 and 2: No detriment to Event Free Survival (EFS). Initial EFS readout anticipated in ~2-years

FDA discussion ongoing for use of ORR as potential surrogate and composite endpoint for earlier approval scenarios

Currently projecting ~400 patient enrollment****

Three Independent Approaches for Demonstrating Clinical Benefit With Approval Pathway

Enucleation Cohort → Save the Eye Brachytherapy Cohort → Protect Vision Follow-up → No detriment to EFS

*FDA briefing book notes clinical endpoint target to exceed a lower bound of 10% for eye preservation rate with a 95% confidence interval
** Treatment to maximum benefit: continued observation of ocular tumor shrinkage
***Estimate of initial no detriment EFS readout of UM patients with high risk of metastatic disease
**** Finalization pending FDA discussions; current preliminary enrollment projections. Target to enroll UM patients with high-risk of metastatic disease

Darovasertib and Uveal Melanoma Patient Journey

High Unmet Need and Multiple First-Line Opportunities in UM and MUM*

+95% of UM patients harbor GNAQ/GNA11 mutation

Uveal Melanoma Patient Journey

	Neoadjuvant UM	Adjuvant UM	MUM
HLA-A2-Negative (~70% of UM / MUM)**	No FDA Approved Therapies* → **Daro** Phase 2/3 Enucleation Define Approval Path → **Daro** Phase 2/3 Radiation Define Approval Path	No FDA Approved Therapies* → **Daro** Phase 2	No FDA Approved Therapies* → **Daro + Crizo** Registrational Trial Accelerated Approval Full Approval
HLA-A2-Positive (~30% of UM / MUM)**			**Daro + Crizo** Target NCCN / Compendia Listing
Target Treatment Duration	≥6 months	≥6 months	mPFS + ~3 months
Target Clinical Endpoints	Eye Preservation, Time to Vision Loss, No detriment to EFS	Relapse Free Survival	ORR, mPFS, mOS
Annual Incidence***	~12K	~12K	~4-5k

FDA Orphan Drug Designation in Uveal Melanoma[+]; FDA Fast Track Designation in Metastatic Uveal Melanoma

Phase 2/3 Registrational Trial Ongoing in HLA-A2 negative 1L MUM for both Accelerated and Full Approval

*No FDA approved systemic therapies in multiple UM and MUM indications across the patient journey

**IDEAYA data: ~70% of MUM patients were HLA-A2-negative based on 149 patients tested for HLA-A2 status as presented at ESMO 2023; ***Annual incidence for North America, Europe and Australia (as applicable), based on market research analysis

[+] Orphan Drugs benefit from certain tax credits and may be excluded from certain mandatory price negotiation provisions of the 2022 Inflation Reduction Act

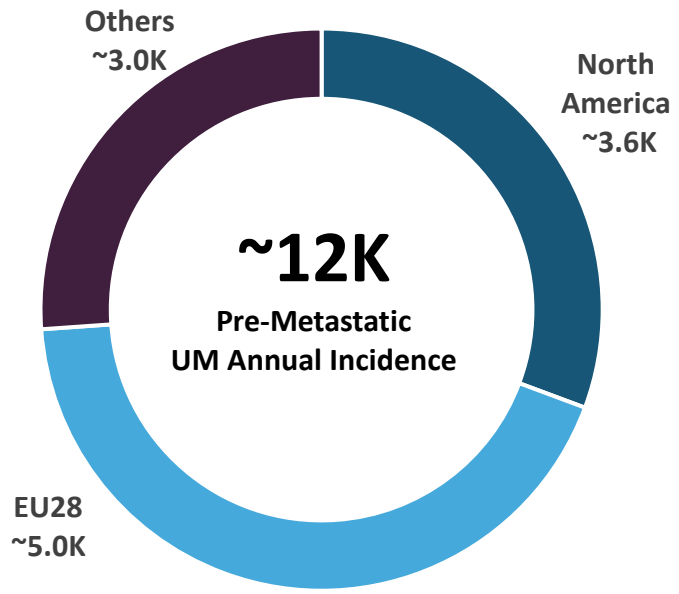
IDEAYA BIOSCIENCES

Annual Incidence of Pre-Metastatic UM*

North America, Europe, and Australia

High Unmet Need: No FDA-Approved Therapies for Pre-Metastatic Uveal Melanoma

NA, Europe, Australia Annual Incidence in UM



Projected Addressable UM Total Prevalence is Multiples of Annual Incidence

Pre-Metastatic Uveal Melanoma		
Small Tumors	**Medium Tumors**	**Large Tumors**
~30% of patients[1]	~50% of patients[1]	~20% of patients[1]
• Tumors measuring **<3mm** in apical height and basal diameter of **<5mm** • Primarily managed with **close observation** • **Treatment reserved until growth** is observed	• Tumors measuring **3 to 8mm** in apical height and basal diameter of **<16mm** • Treatment at this stage can be **plaque brachytherapy, PBT, or enucleation**	• Tumors measuring **>8mm** in apical height or basal diameter **>16mm** • Most notable therapies are CPRT and enucleation • **Enucleation preferred** as they may not be managed with RT

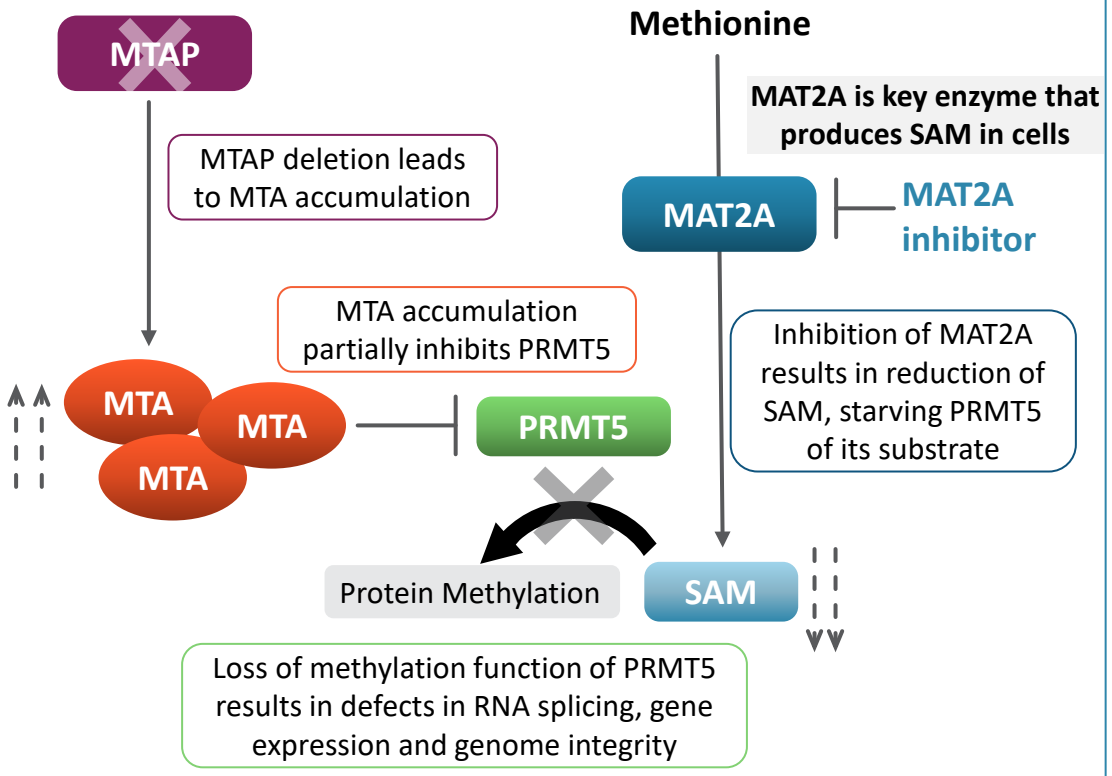
1 Weighted average of tumor sizes across patients with iris, ciliary, and choroidal melanoma; PBT: Particle Beam Therapy; CPRT: Charged Particle Radiation Therapy; RT: Radiation Therapy; UM = Uveal Melanoma; Source: Paul. NEJM, 2021; Sayan. ROJ, 2020; Shields. Arch Opthalmol. 2009; Clear View Analysis

* IDEAYA Internal Analysis; North America (NA): U.S. and Canada, Others: Australia and non EU28 Europe

MAT2A Inhibition is Synthetic Lethal with MTAP-Deletion

Strategies to address MTAP$^{-/-}$ Prevalence in ~15% of all Solid Tumors

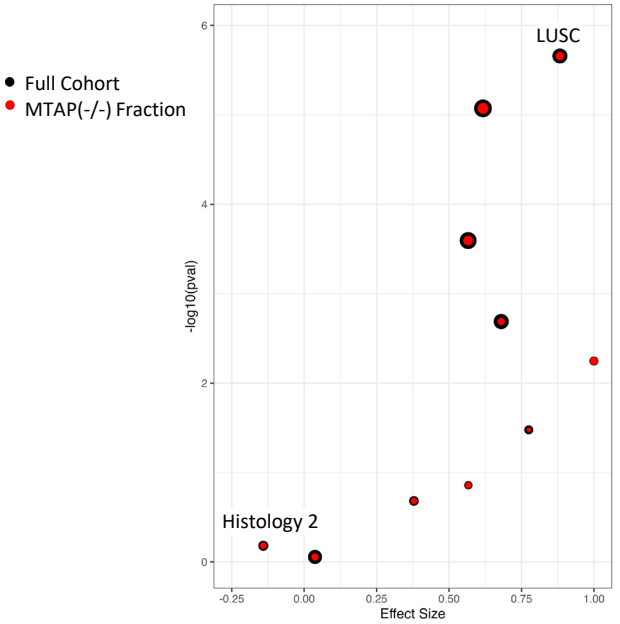
MTAP-MAT2A Synthetic Lethality Biology

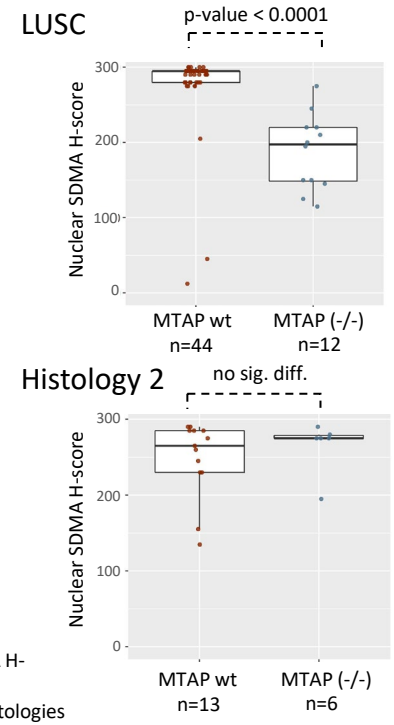


Endogenous Suppression in MTAP$^{-/-}$ PDX Models

Methylation Pathway Suppression in MTAP(-/-) Squamous Lung (LUSC)

SDMA Effect Size (PDX Tissue Microarray)





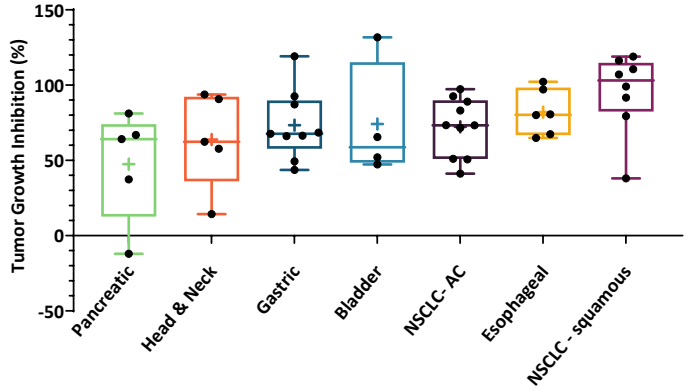
IDEAYA Data: AACR 2023 (M. Fischer et al.) – Volcano plot comparing nuclear SDMA H-Score by IHC in MTAP(-/-) relative to MTAP wt across tissue microarray (TMA) of treatment-naïve PDX models; LUSC shows most significance effect across tumor histologies

IDE397 Demonstrates Broad Efficacy across MTAP-Deletion PDX Models

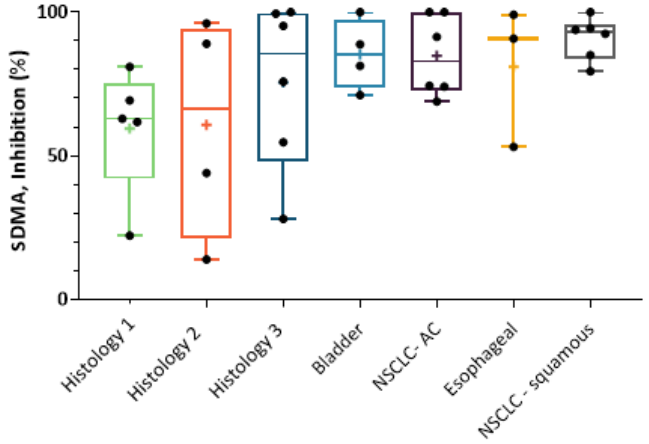
Deep Regressions observed in NSCLC-squamous (LUSC), Esophageal and Bladder Cancers

IDE397 Efficacy: 47 MTAP$^{-/-}$ PDX Models

TGI with IDE397 (30mpk) in MTAP-/- PDX Panel



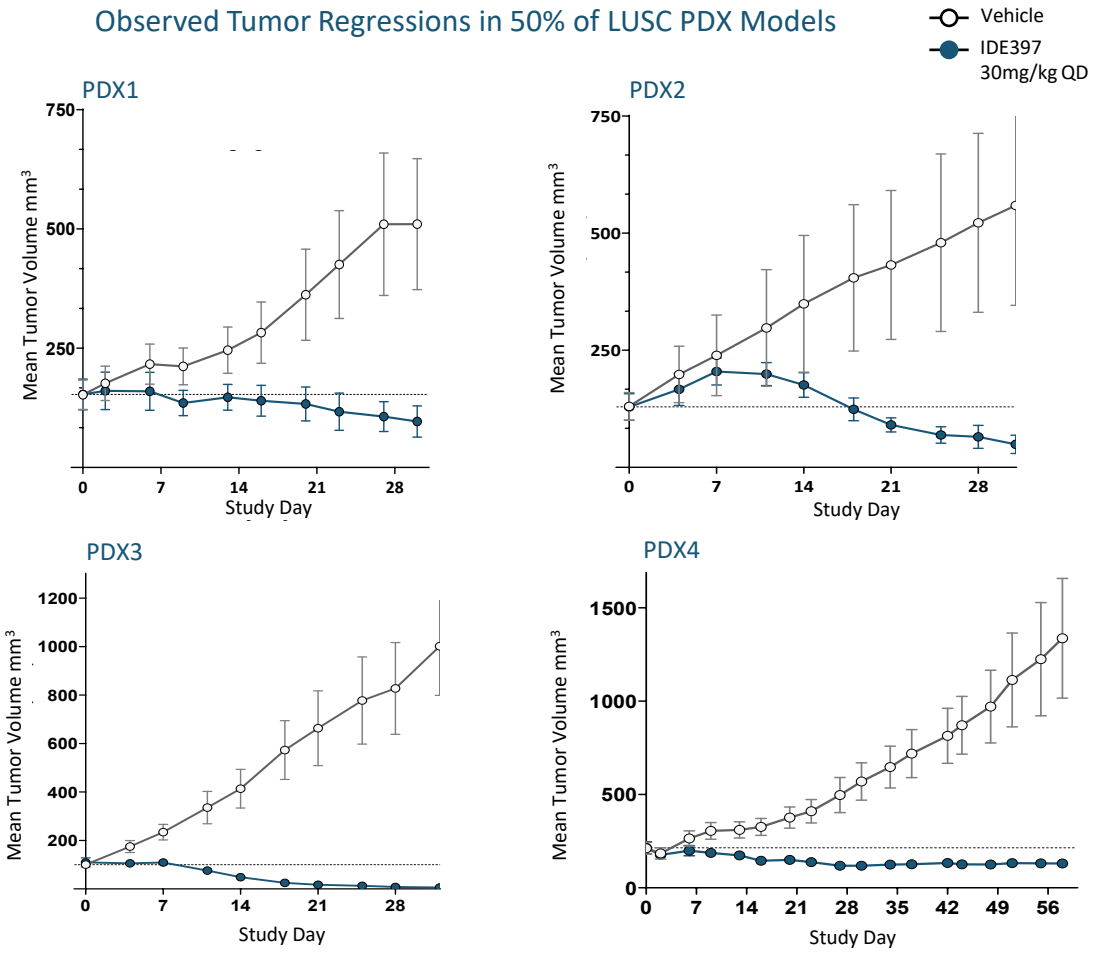
SDMA Suppression in Residual Tumors* at End of Study



IDEAYA Data; *2 of 8 LUSC unevaluable due to insufficient residual tumor burden

IDE397 In Vivo Efficacy in LUSC PDX Models

Observed Tumor Regressions in 50% of LUSC PDX Models



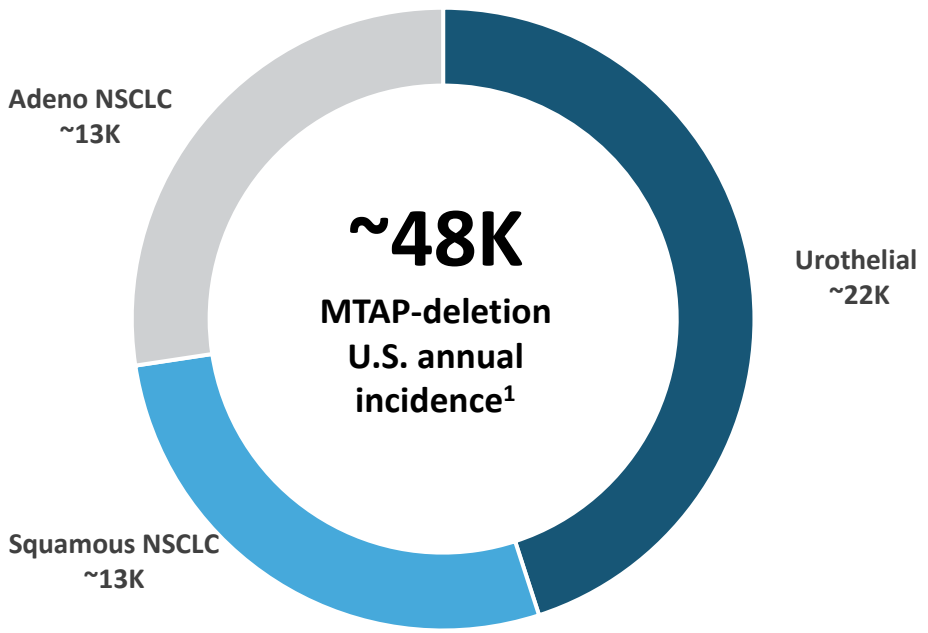
IDEAYA Data

IDE397: Phase 2 Potential First-in-Class MAT2A Inhibitor

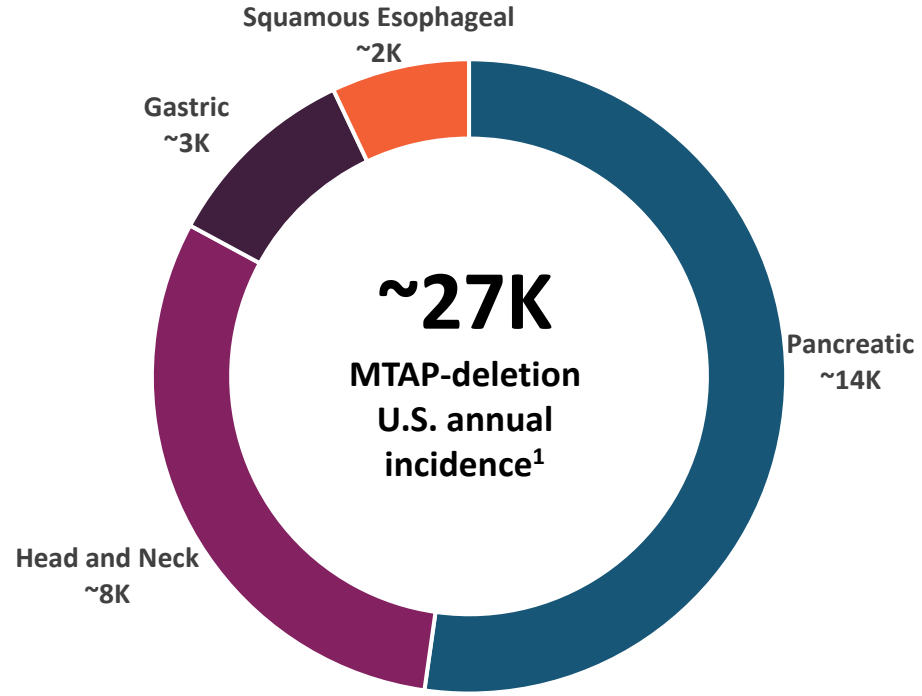
~48k U.S. Annual Incidence in MTAP-Deletion NSCLC and Urothelial Cancer

High Unmet Need: No FDA-Approved Therapies for MTAP-Deletion Solid Tumors

U.S. Annual Incidence in Priority Tumor Types



U.S. Annual Incidence in Potential Expansion Tumor Types



[1] Estimated addressable patient population based on SEER 2024 incidence and MTAP-deletion frequency from TCGA PanCancer Atlas, including frequency of 26% in urothelial, 19% in squamous NSCLC, 11% in adeno NSCLC, 21% pancreatic, 14% head and neck, 10% gastric, and 28% squamous esophageal cancers.

IDE397 Demonstrates Manageable Safety Profile at RP2D of 30mg QD

Treatment-Emergent Adverse Events (TEAE) & Treatment-Related Adverse Events (TRAE)

Safety Profile Summary:

- No treatment related discontinuations
- No treatment related serious AEs
- Long term tolerability observed with several patients on drug for ≥ 6 cycles

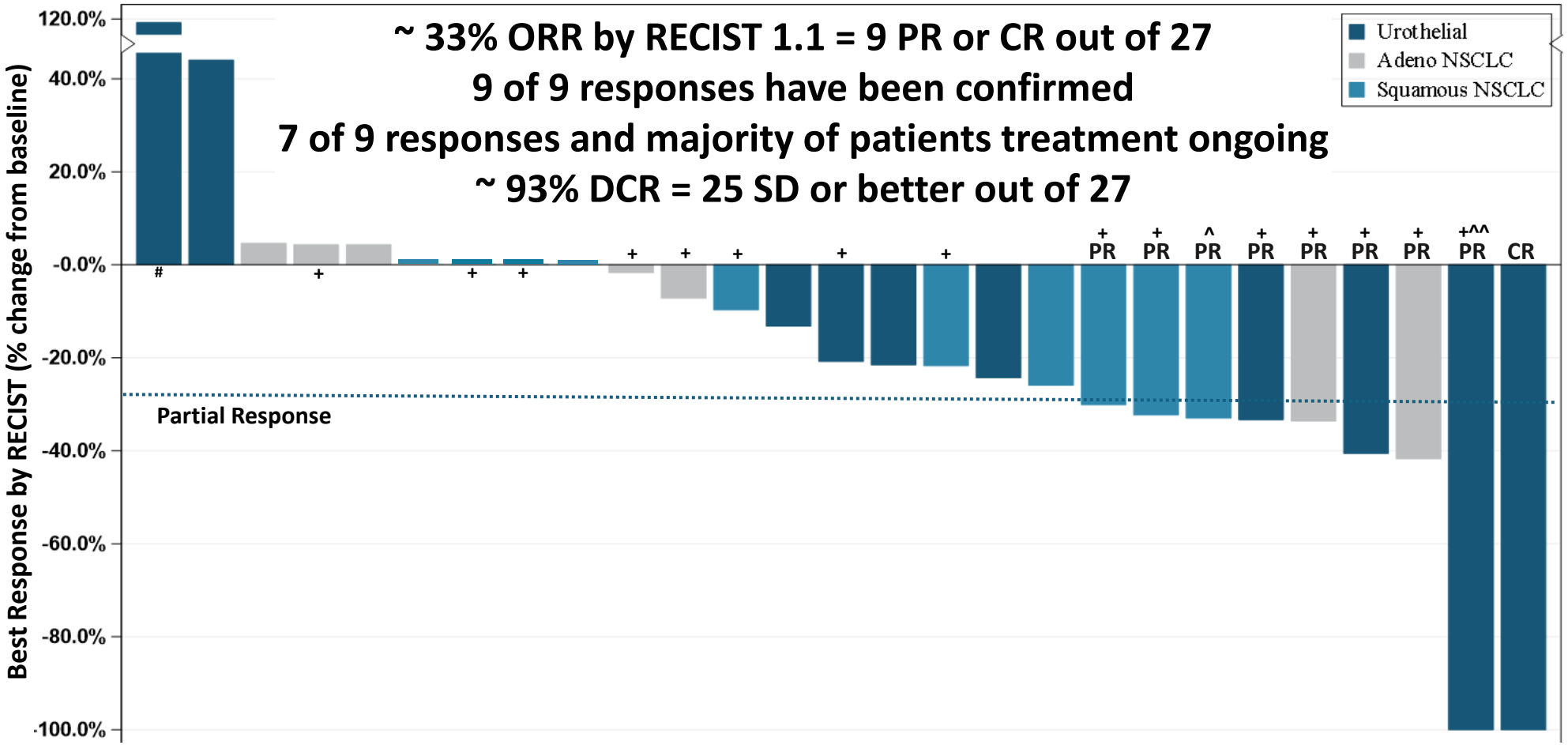
Treatment Emergent & Treatment Related Adverse Events in Safety Population, n= 28

	TEAE (≥ 15%)		TRAE	
Preferred Term	**All Grade, n (%)**	**Grade ≥ 3, n (%)**	**All Grade n (%)**	**Grade ≥ 3, n (%)**
Any Event	23 (82%)	11 (39%)	15 (54%)	5 (18%)
Fatigue*	9 (32%)	1 (4%)	3 (11%)	0 (0%)
Peripheral Neuropathy**	8 (29%)	0 (0%)	7 (25%)	0 (0%)
Decreased Appetite	7 (25%)	0 (0%)	3 (11%)	0 (0%)
Constipation	6 (21%)	0 (0%)	1 (4%)	0 (0%)
Blood Creatinine Increase	5 (18%)	0 (0%)	3 (11%)	0 (0%)
Nausea	5 (18%)	0 (0%)	3 (11%)	0 (0%)
Asthenia	5 (18%)	1 (4%)	2 (7%)	1 (4%)

*Fatigue includes cancer fatigue, fatigue, and muscle fatigue
**Peripheral Neuropathy includes acute polyneuropathy, polyneuropathy, peripheral sensory neuropathy, paresthesia, neuropathy peripheral, dysesthesia
**No grade 3 peripheral neuropathy reported; 6 of 7 patients with treatment related Gr 1/2 neuropathy had prior platinum-containing regimens
Data from an unlocked, unverified database as of 22AUG2024 data cut off; AE = Adverse Event; Gr = grade

IDE397 Phase 1 Clinical Efficacy in MTAP-Deletion NSCLC & Urothelial Cancer

Best Response by RECIST 1.1 at 30mg QD Phase 2 expansion dose*



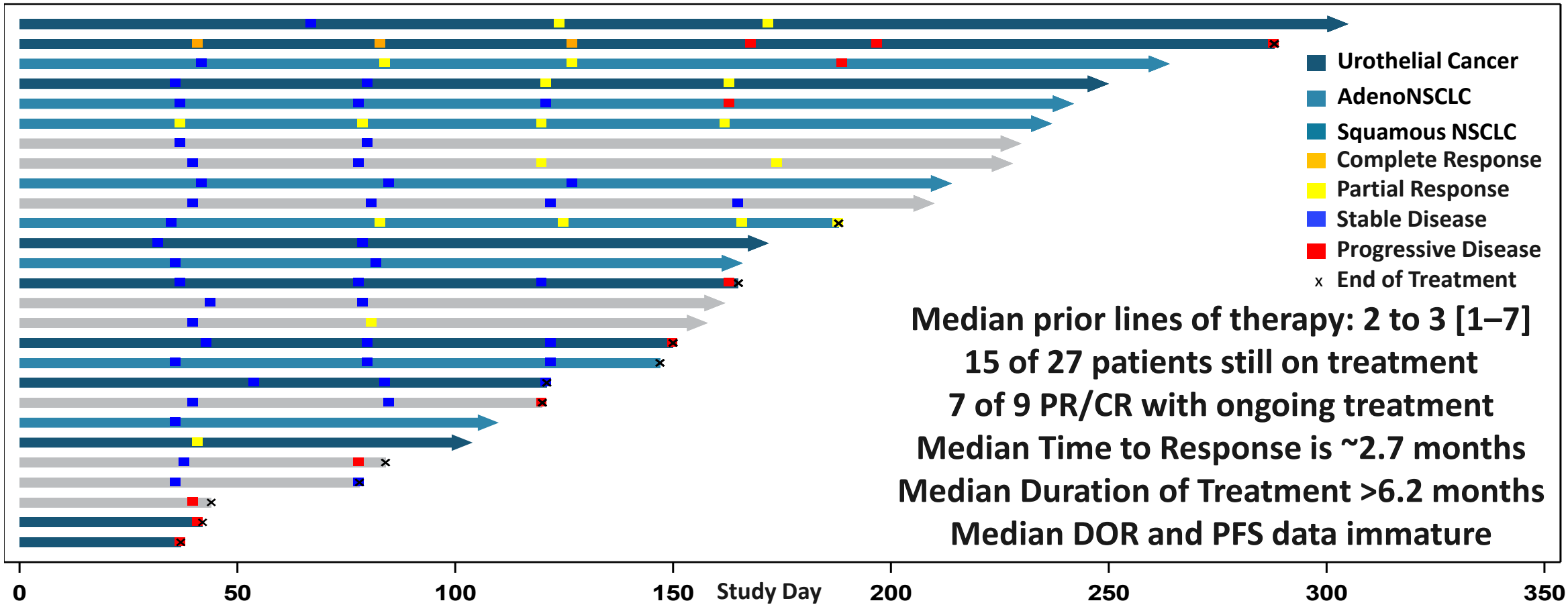
Efficacy by RECIST 1.1*	
Evaluable Pts	27
Best Response, n (%)	
CR	1 (4)
PR	8 (30)
SD	16 (59)
PD	2 (7)
ORR, n (%)	9 (33)
Confirmed, n^^	9
ORR, n (%), by Tumor (n)	
Squam NSCLC (8)	3 (38)
Adeno NSCLC (9)	2 (22)
Urothelial (10)	4 (40)
DCR, n (%)	25 (93)

* Evaluable Patients: Treated with ≥1 cycle (21 days) of IDE397 at the 30 mg expansion dose and with ≥1 post-baseline scan(s); # Patient received less than 75% of planned dosing prior to the first scan due to unrelated AEs in cycle 2; ^ Response evaluation by central review; ^^ PR with -100% best response had complete resolution of the target lesion; + patient still on treatment as of cut-off date. Data from an unlocked, unverified database as of 22AUG2024 data cut off; two patients confirmed response after the data cut. CR = Complete Response, PR = Partial Response; SD = Stable Disease; PD = Progressive Disease; ORR = Overall Response Rate; DCR = Disease Control Rate; c = confirmed; Squam = Squamous; Adeno = Adenocarcinoma; Pts = patients

IDE397 Phase 1 Clinical Efficacy in MTAP-Deletion NSCLC & Urothelial Cancer

Time on treatment at 30mg QD Ph2 Expansion Dose

NSCLC & Urothelial Cancer Efficacy Evaluable Patients Treated at 30 mg (n=27)*



*Evaluable Patients: Treated with ≥1 cycle (21 days) of IDE397 at 30 mg expansion dose and with ≥1 post-baseline scan(s) Data from an unlocked, unverified database as of 22AUG2024 data cut off; PFS = Progression Free Survival; DOT = Duration of Treatment; DOR = Duration of Response; The confirmed complete response urothelial patient progressed after the week 18 scan due to a drug-unrelated AE dose holiday and then restarted treatment. Two patients confirmed response after the data cut.

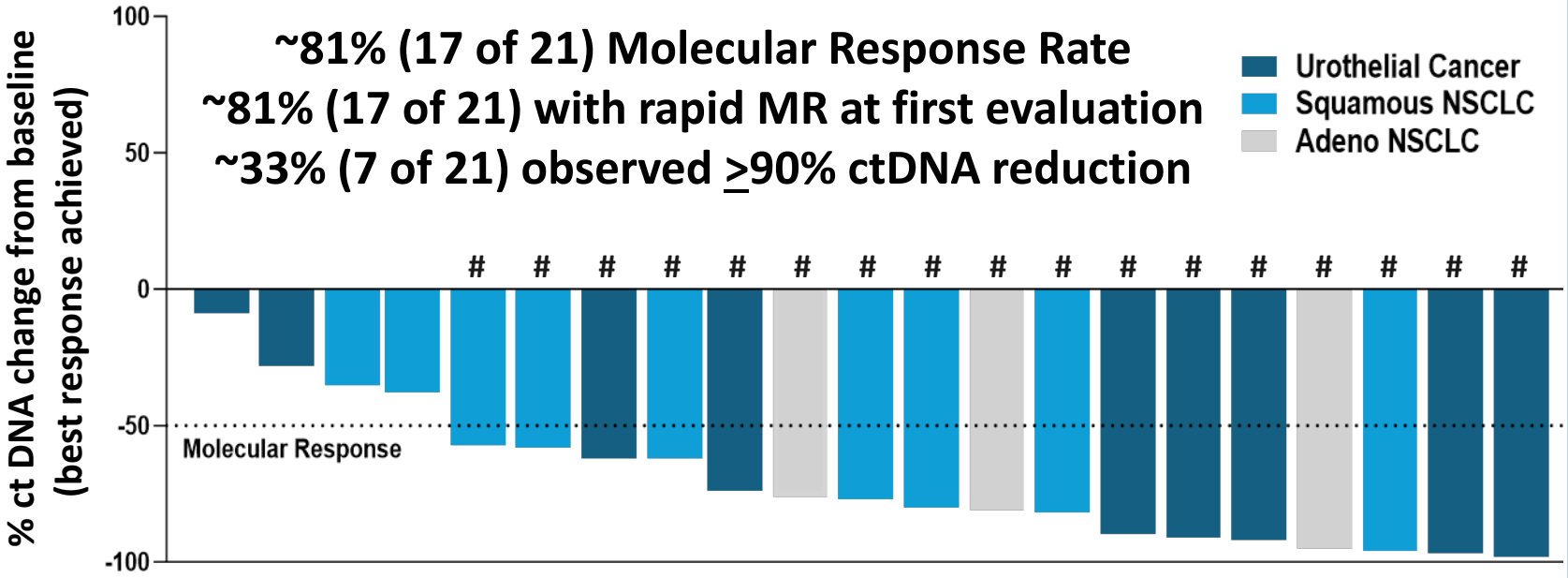
IDE397 Phase 1 Clinical Efficacy in MTAP-Deletion NSCLC & Urothelial Cancer

Molecular Responses and ctDNA reduction with IDE397 treatment

ctDNA Analysis Summary:

- ctDNA reduction observed in all subjects with evaluable samples
- Rapid MR observed at 1st evaluation in ~81% of patients
- ~33% observed robust ≥90% ctDNA reduction

ctDNA Molecular Response (MR) Analysis (n=21)*, IDE397 30mg QD



Patient achieved MR at first evaluation
* Patients with available baseline and at least one on-treatment ctDNA sample

ctDNA testing by Guardant Infinity™; MR = Molecular Response; Based on ctDNA batch sample results received from Guardant on October 10, 2024

IDE397 Confirmed CR by RECIST 1.1 in an Urothelial Carcinoma Patient With MTAP-Deletion

Case Report and CT-Scan Images

Baseline Characteristics:

60+ years old male urothelial carcinoma

Treatment History:

- Neo-adjuvant cisplatin/gemcitabine
- Left nephro-ureterectomy
- Adjuvant Nivolumab

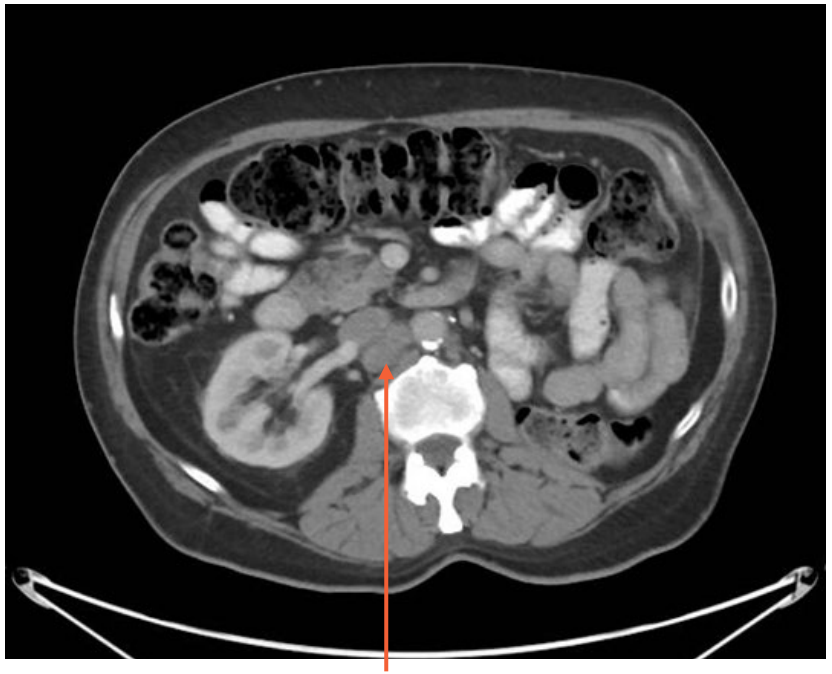
Recurrent disease while on adjuvant immunotherapy

RECIST 1.1 Evaluation:

CR by RECIST 1.1 at week 6 and confirmed at week 12

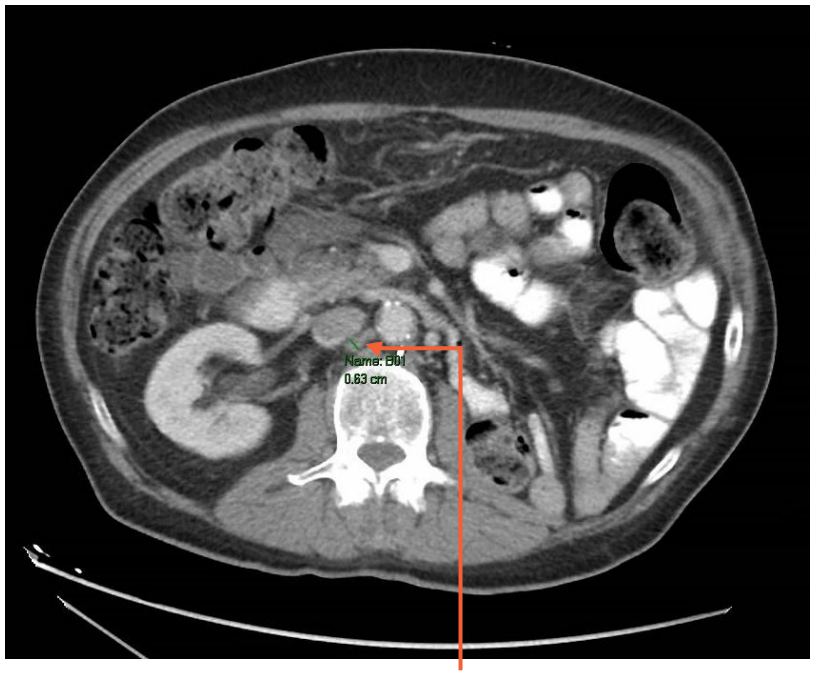
Urothelial CA with MTAP-Deletion: Maintained Complete Response at Week 18

Baseline



Enlarged Retrocaval Lymph Node, 1.5 cm short axis

Week 18



Maintained Complete Response at week 18 scan

CR = Complete Response. IDEAYA Data (based on preliminary analysis of investigator provided images); tumor lesion reductions by investigator review, from an unlocked unverified database

IDE397 Confirmed PR by RECIST 1.1 in Urothelial Cancer Patient with MTAP-Deletion

Case Report and CT-Scan Images

Baseline Characteristics:

70+ years old male with urothelial cancer with MTAP-deletion

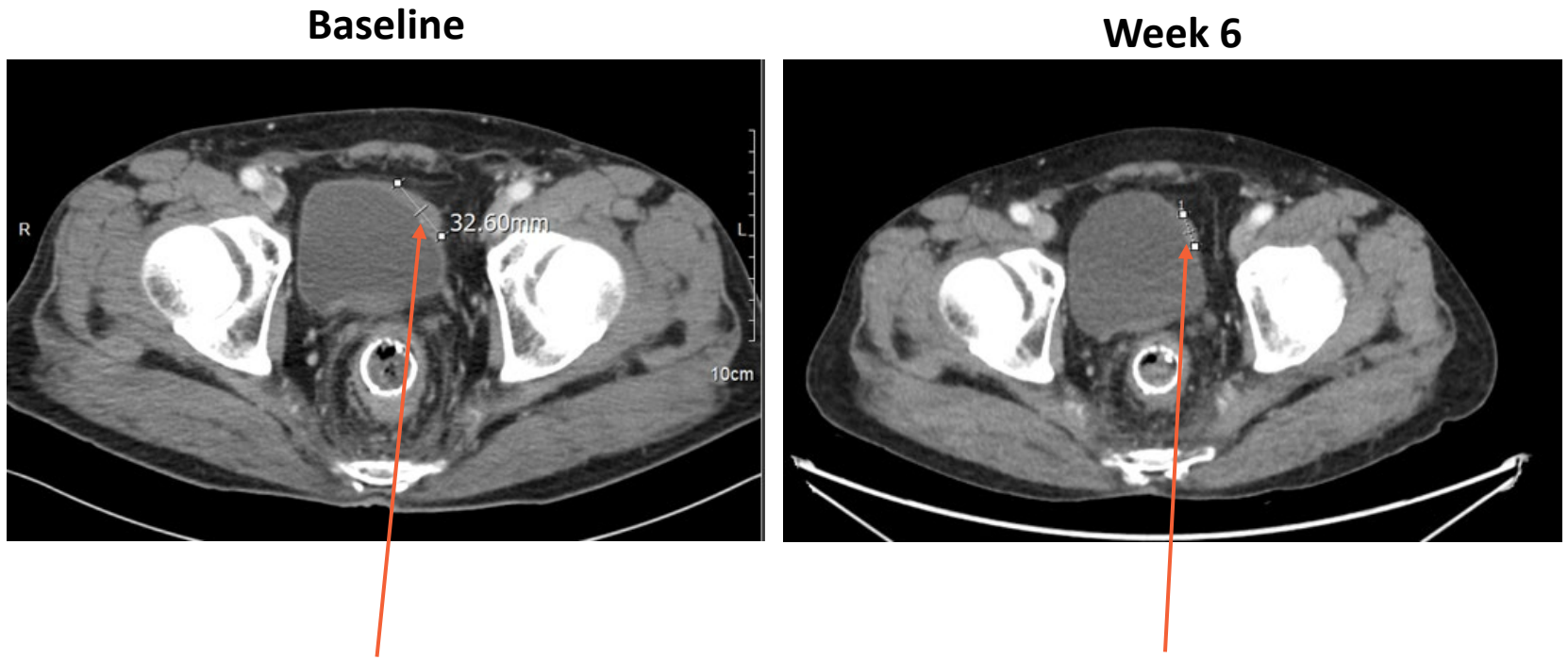
Treatment History:

- Neoadjuvant MVAC
- Definitive CCRT; 5-FU + Mitomycin-C with XRT

RECIST 1.1 Evaluation:

PR by RECIST 1.1 at week 6, confirmed at week 12 with treatment ongoing

Urothelial Cancer MTAP-Deletion Patient: Partial Response at Week 6



MVAC = Methotrexate, Vinblastine, Doxorubicin, Cisplatin. CCRT = Concurrent chemoradiotherapy. XRT = Radiation Therapy. PR = Partial Response. IDEAYA Data (based on preliminary analysis of investigator provided images); tumor lesion reductions by investigator review, from an unlocked unverified database

IDE397 Confirmed PR by RECIST 1.1 in Adeno NSCLC Patient with MTAP-Deletion and KRAS G12D Mutation

Case Report and CT-Scan Images

Baseline Characteristics:

70+ years old Adeno NSCLC male w/ MTAP-KRAS G12D

Treatment History:

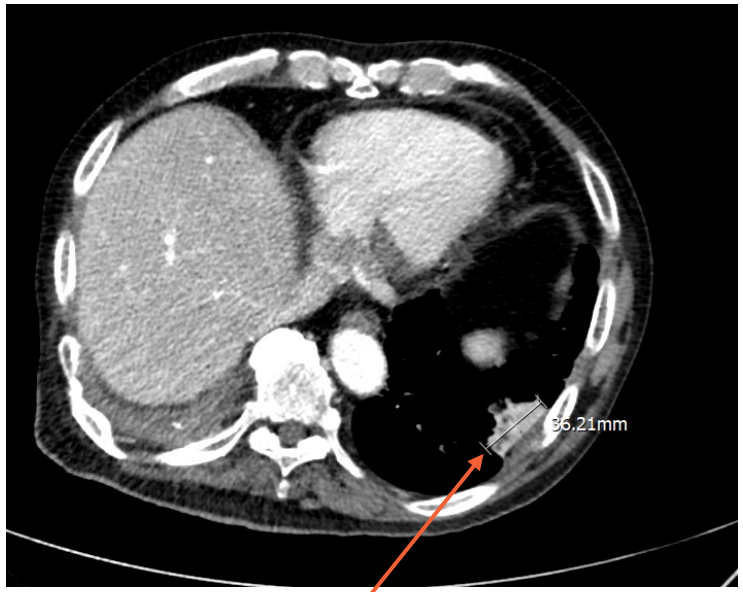
- R Lower Lobectomy/ mediastinal node dissection; Adjuvant Cisplatin + Vinorelbine
- Pembro + Pemetrexed
- Palliative RT to Lingula; Bispecific ADC

RECIST 1.1 Evaluation:

PR by RECIST 1.1 at Week 18, confirmed at Week 24

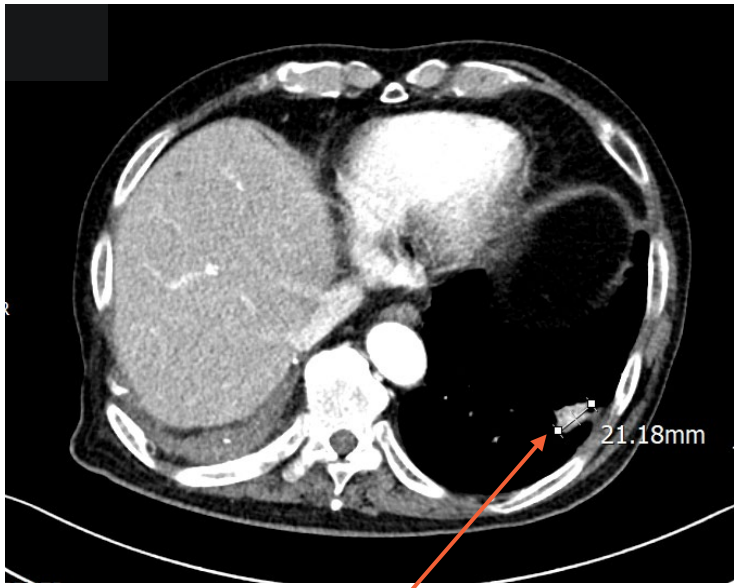
NSCLC MTAP-Deletion Patient: Partial Response at Week 18

Baseline



Enlarged Left Lower Lung Mass

Week 18



Partial Response (-42%)

PR = Partial Response. IDEAYA Data (based on preliminary analysis of investigator provided images); tumor lesion reductions by investigator review, from an unlocked unverified database; Pembro = Pembrolizumab

IDE397 + Sacituzumab Govitecan Confirmed Partial Response by RECIST 1.1 in Urothelial with MTAP-Deletion and FGFR3-TACC3 Fusion

Case Report and CT-Scan Images

Baseline Characteristics:

60+ years old male with Urothelial Cancer and MTAP-deletion and FGFR-TACC3 fusion

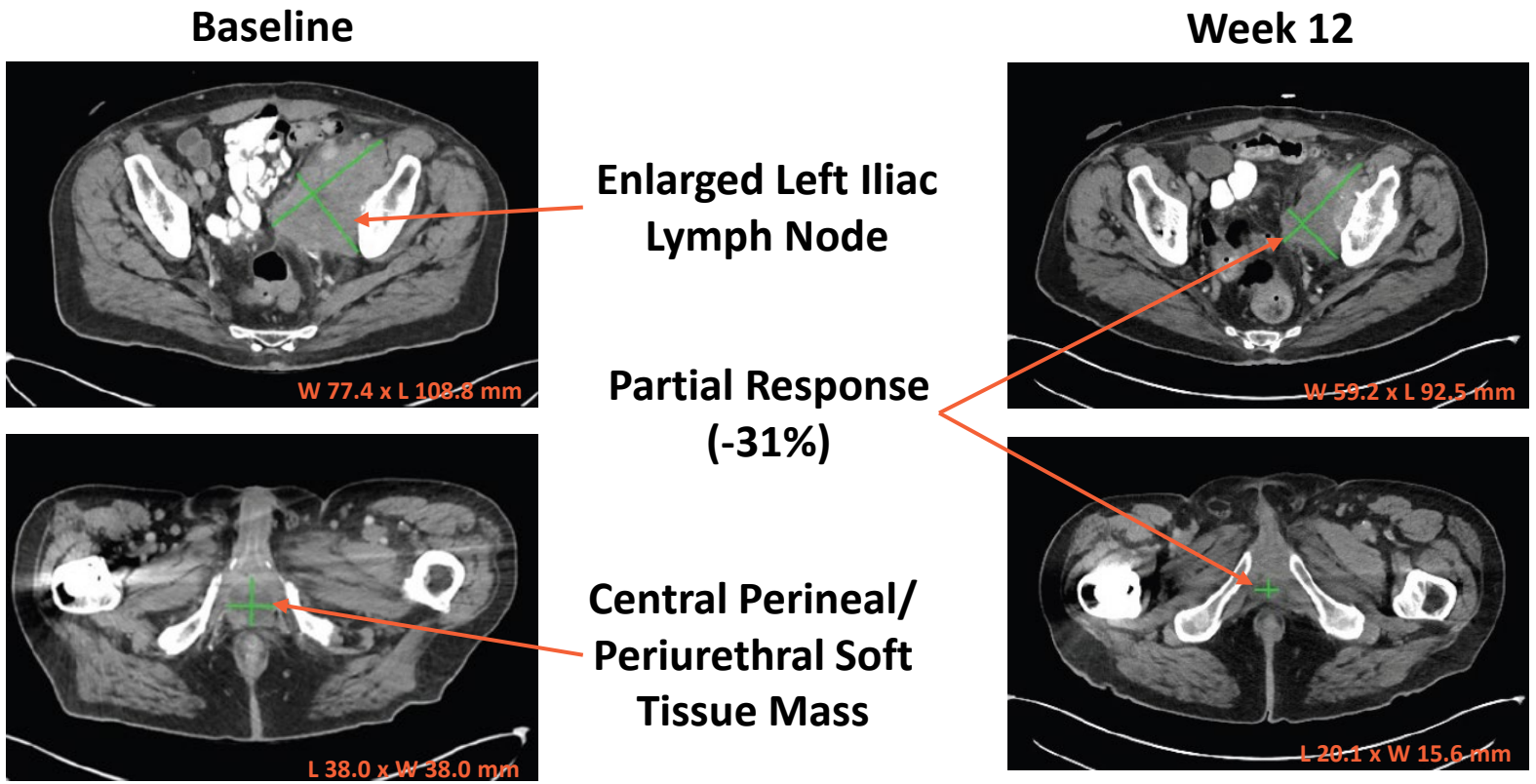
Treatment History:

- Transurethral resection
- Best response of PD to Enfortumab Vedotin (EV) + Pembrolizumab, and Erdafitinib

Clinical Evaluation:

PR by RECIST 1.1 at week 12, and confirmation at next scan with treatment ongoing

Urothelial Cancer MTAP-Deletion Patient: Partial Response at Week 12 CT-Scan



PR = Partial Response. PD = Progressive Disease. MR= Molecular Response. IDEAYA Data (based on preliminary analysis of investigator provided images); tumor lesion reductions by investigator review, from an unlocked unverified database.

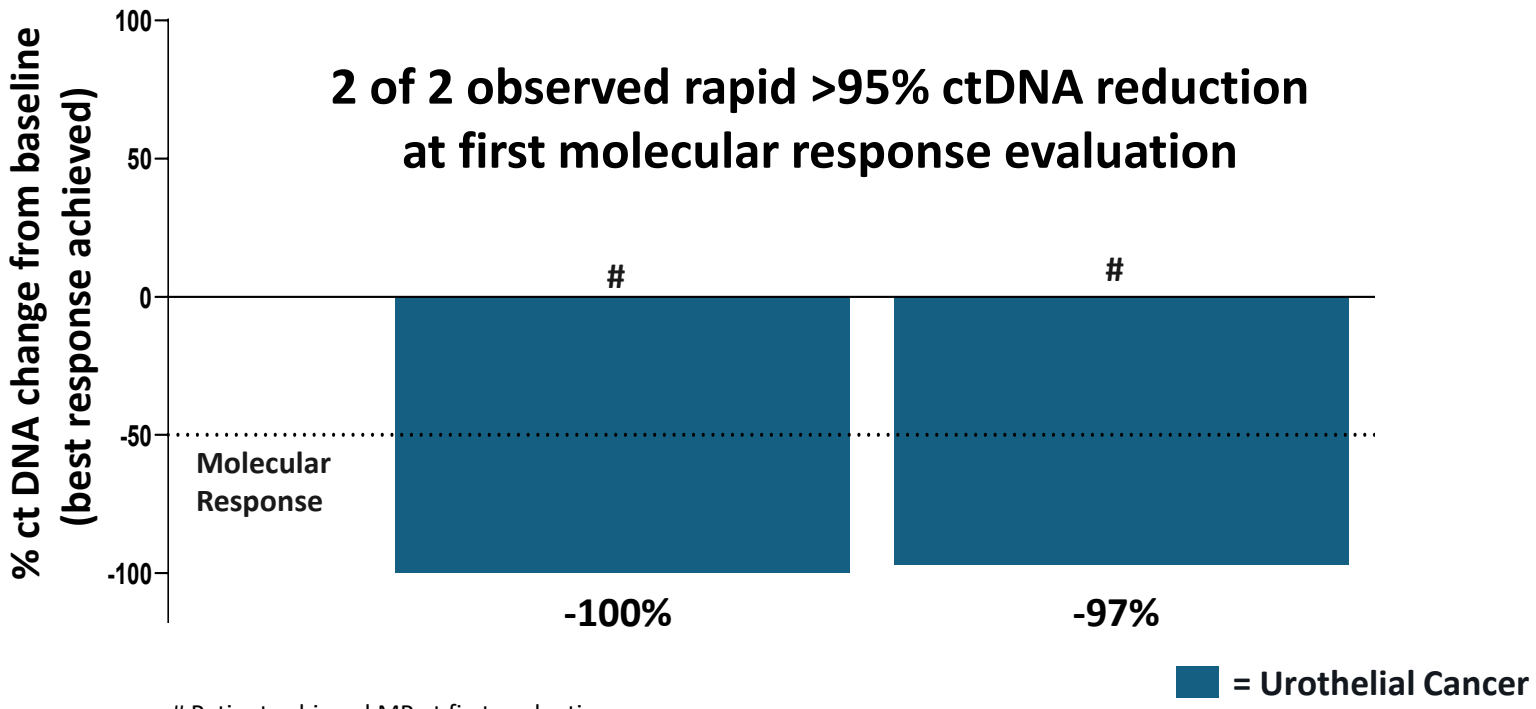
IDE397 + Sacituzumab Govitecan Observed Rapid >95% ctDNA Reduction in Urothelial Cancer with MTAP-Deletion

Molecular Responses and ctDNA reduction with IDE397 + SG treatment

ctDNA Analysis Summary:

- 2 of 2 Urothelial Cancer MTAP-deletion patients on IDE397 + SG combination observed rapid first-evaluation molecular response with ctDNA reduction of >95%
- IDE397 + SG combination dose escalation evaluation ongoing

ctDNA Molecular Response (MR) Analysis (n=2)*



Patient achieved MR at first evaluation
* Patients with available baseline and at least one on-treatment ctDNA sample

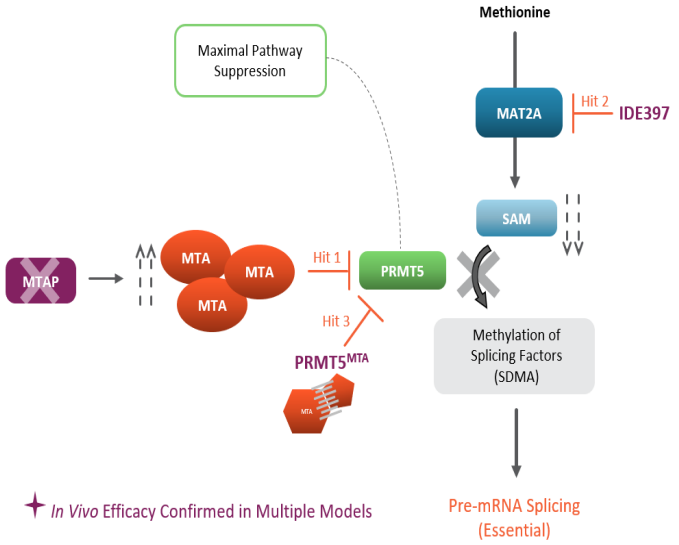
ctDNA testing by Guardant Infinity™; MR = Molecular Response; SG = Sacituzumab Govitecan (Trodelvy®); MTD = maximum tolerated dose
Based on ctDNA batch sample results received from Guardant on October 10, 2024

IDE397 Clinical Combination Strategy in MTAP-Deletion NSCLC

Phase 1 Study of IDE397 + AMG 193 (Amgen PRMT5) Clinical Combination Enrolling

IDE397 + MTA-Cooperative PRMT5i

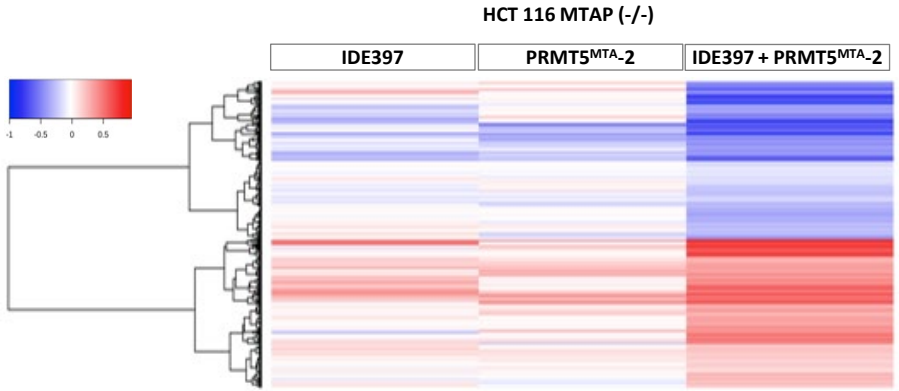
IDE397 + MTA-Cooperative PRMT5 Inhibitor enables Maximal Pathway Suppression



Enhanced Combination Efficacy Observed in multiple Tumor Indications and Across Representative PRMT5^{MTA} Inhibitors

Alternative mRNA Splicing Analysis

Combination Highly Perturbs Splicing Fidelity



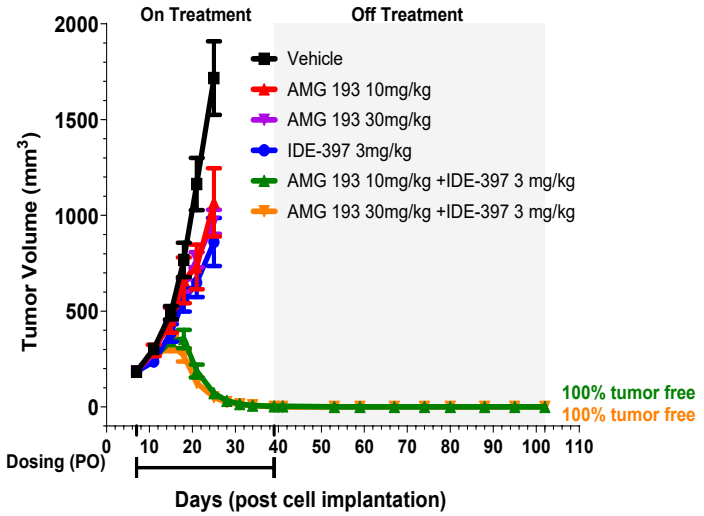
Quantitative Assessment of IDE397 / PMRT5i Effect on pre-mRNA Splicing

>2800 significant Splicing Events only in the Combination Treatment Arm+

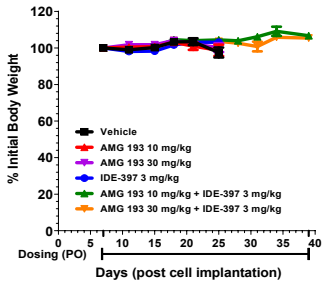
Identified as novel splice junctions or as not meeting significance criteria in monotherapy arms
Color = heatmap of Z-scored TMM-normalized counts per million

Preclinical Efficacy

Observed Durable Complete Responses



No Body Weight Loss

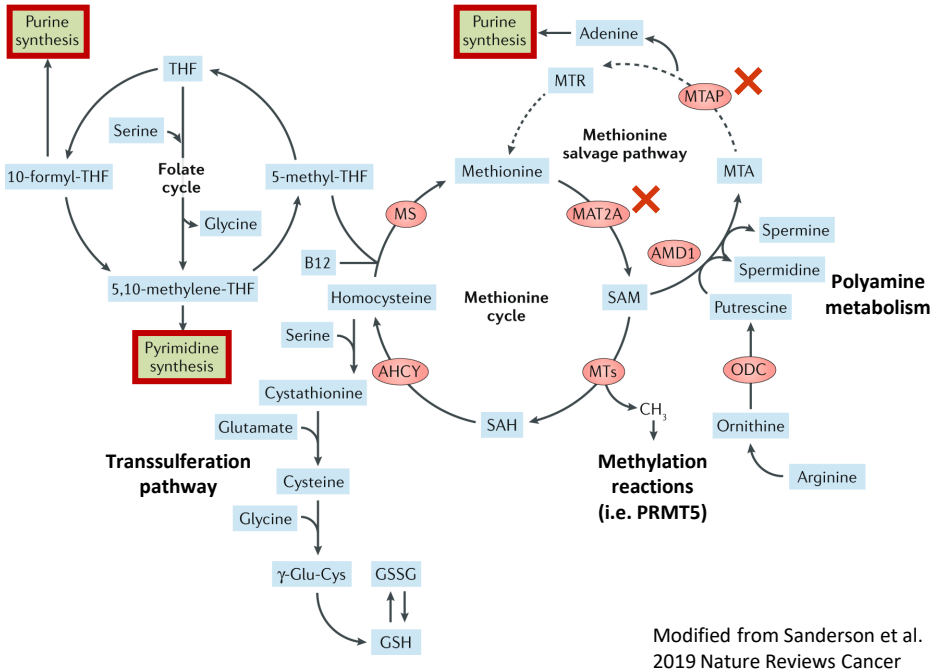


IDEAYA / Amgen Data: AACR 2023, M. Fischer et al.

TRODELVY® + IDE397 Combination in MTAP-Deletion Urothelial Cancer

Disordered methionine metabolism underpins IDE397 combination opportunity with TOP1i-based ADC

IDE397 perturbs both nucleotide pools and mRNA splicing in MTAP$^{-/-}$ cells

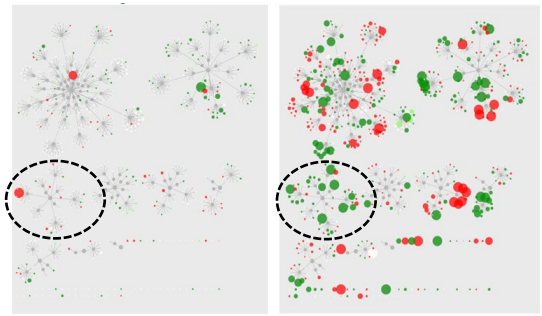


Modified from Sanderson et al. 2019 Nature Reviews Cancer

Metabolic perturbation by IDE397 selectively interacts with MTAP

Metabolite Cytoscape

Global (untargeted) metabolic profiling of MTAP^{wt} vs MTAP$^{-/-}$ +/- IDE397

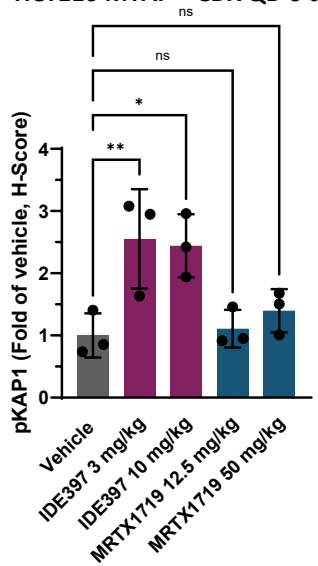


MTAP WT +/- IDE397 **MTAP$^{-/-}$ +/- IDE397**

Ovals indicate nucleotide subcluster (purine/pyrimidine); green-decrease, red-increase FDR< 0.05

IDE397 provokes DDR response in vivo

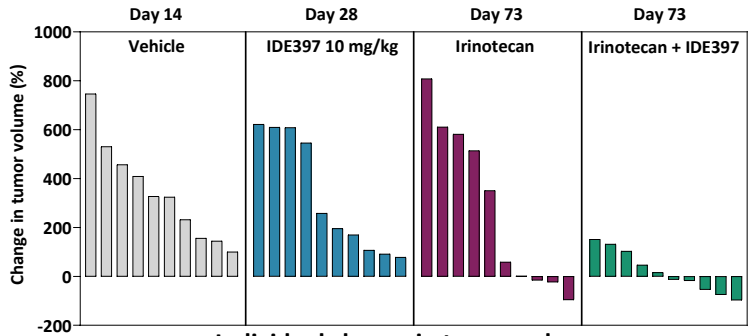
HCT116 MTAP$^{-/-}$ CDX QD 6 days



Key clinical correlates underscore combination opportunity

- MTAP$^{-/-}$ UC: shorter survival, lower RR to CPI, shorter PFS and OS with Enfortumab-Vedotin (EV)
- MTAP$^{-/-}$ status is associated with pemetrexed antitumor activity in UC
- A small study evaluating Trodelvy activity in UC post-EV suggested preferential activity in MTAP$^{-/-}$ tumors (RR 50% vs. 19% post EV)
- IDE397 demonstrated monotherapy efficacy in MTAP$^{-/-}$ UC (CR observed in a patient with short DFI post platinum and CPI, other tumor reductions and molecular responses seen)

TOP1i combination delivers durable benefit in challenging RT112/84 UC CDX model



Individual change in tumor volume

Individual tumors measured on day of study group termination as indicated; termination timing was based on endpoint criteria for tumor volume

IDE397 Phase 1/2 Clinical Development Plan in MTAP-Deletion Solid Tumors

Strategic Focus in Select Monotherapy Indications and High Conviction Clinical Combinations

IDE397 – Clinical Profile

Exposure-Dependent Pharmacokinetic (PK) Profile with low C_{max}:C_{min}

Robust Pharmacodynamic (PD) Response observed

Monotherapy Expansion demonstrated clinical efficacy with Responses in Multiple High-Priority Tumor Types in Dose Expansion, including a Complete Response

IDE397 is strategically well positioned to evaluate both monotherapy and clinical combinations in MTAP-deletion solid tumors

IDE397 Monotherapy Expansion in Select MTAP-Deletion Solid Tumor Types

- IDE397 RDE Monotherapy Expansion: Squamous NSCLC and Urothelial Cancer
- Focus or Additional Indication Expansion

PRMT5 Combination – Targeting Clinical PoC in MTAP-Deletion NSCLC

AMGEN

- IDE397 + AMG 193 MTA-Cooperative PRMT5i#^[1]: Expansion Focus in NSCLC
- Other Potential Indications and/or Combinations

IDE397 + AMG 193
Targeting expansion in NSCLC in late 2024 to early 2025

Trop2-ADC Combination – Targeting Clinical PoC in MTAP-Deletion Urothelial Cancer

GILEAD

- IDE397 + Trodelvy®*: Urothelial Cancer

IDE397 + Trodelvy®
Targeting expansion in Q4'24

AMG 193 = Amgen's investigational MTA-cooperative PRMT5 inhibitor; * Trodelvy® = Gilead's Trop-2 directed ADC
^ Amgen reported initial clinical data at the 2023 AACR-NCI-EORTC that showed 5/18 (ORR=28%) for AMG 193 monotherapy expansion at dose > 800 mg QD in esophageal, pancreatic, renal cell, gallbladder, and Sertoli-Leydig cell cancers
[1] Clinicaltrials.gov: NCT05975073

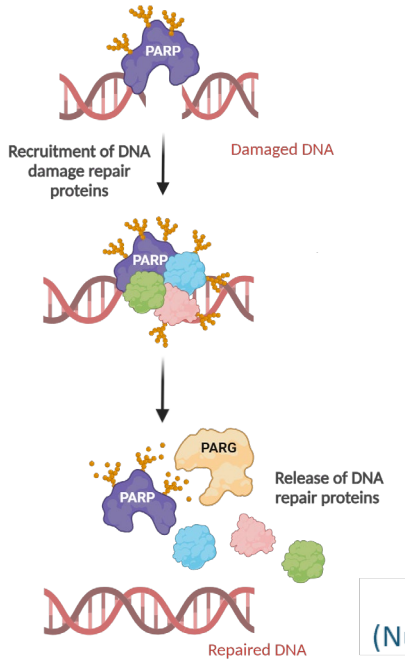
IDEAYA BIOSCIENCES

IDE161: Potential First-in-Class Phase 1 PARG Inhibitor

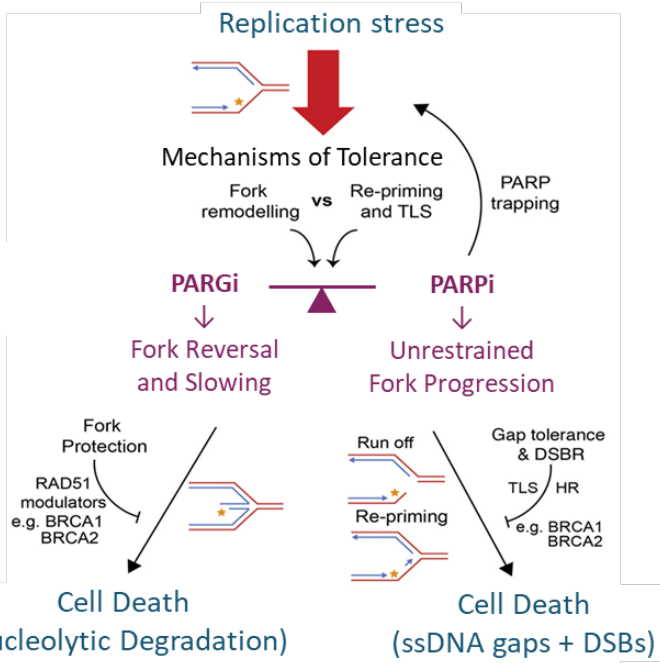
PARG inhibition is synthetic lethal with HRD/replication stress

PARG Inhibition is Mechanistically Distinct from PARPi

PARG hydrolyzes PAR chains to resolve DNA repair events



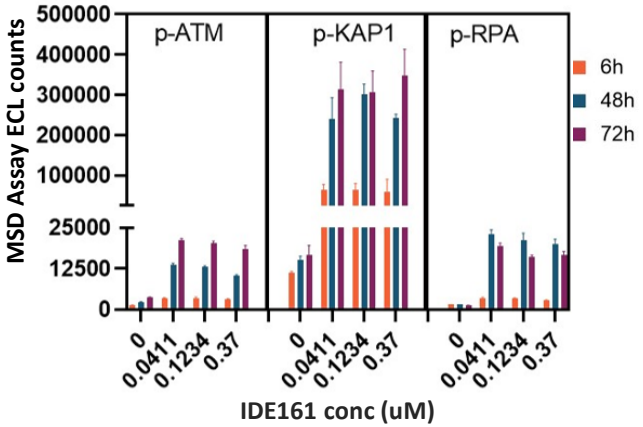
PARG activity is selectively required for tolerance to replication stress

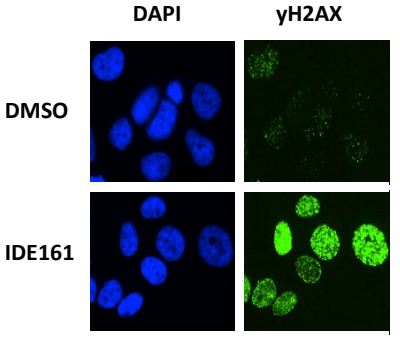


Modified from Pillay et al., Progress in Biophysics and Molecular Biology 2021

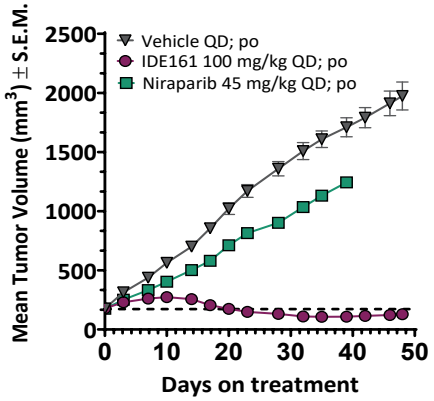
IDE161 is a potent and selective PARG inhibitor

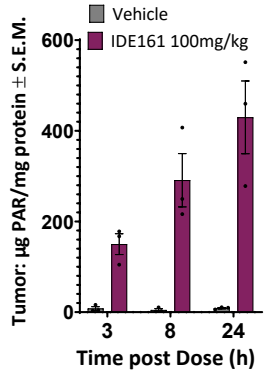
Induction of DNA damage, persistent replication stress and checkpoint activation





Robust anti-tumor activity in PARPi-refractory HRD models



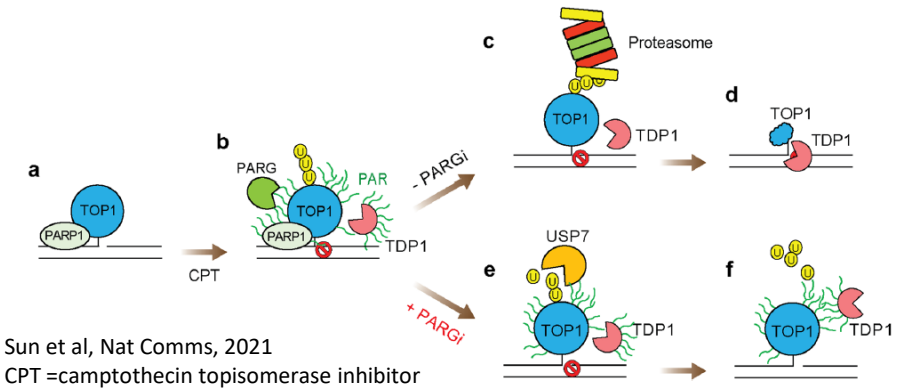


IDE161: Potential First-in-Class Phase 1 PARG Inhibitor

TOP1-Payload ADC Combo Rationale & Potentially Broad Development Opportunity

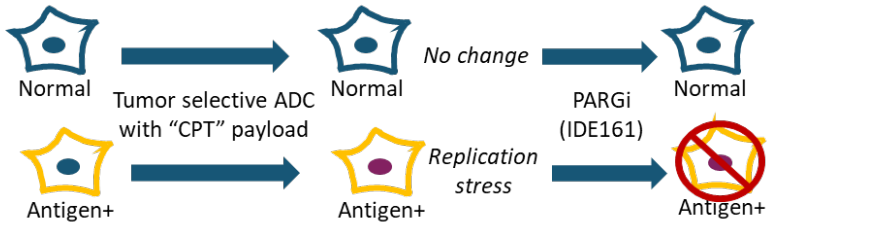
High conviction mechanistic rationale for PARG + Top1 Payload ADCs

Dual inhibition of TOP1i & PARGi induces unresolvable DNA-protein crosslinks



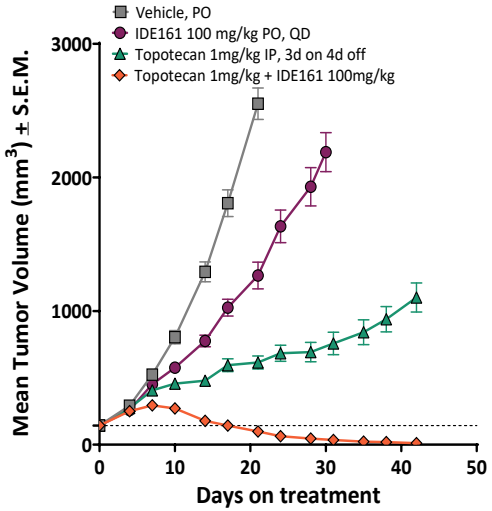
Sun et al, Nat Comms, 2021
CPT =camptothecin topisomerase inhibitor

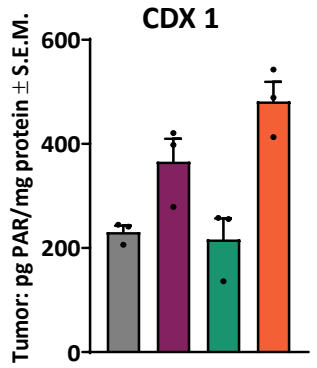
In combo, a TOP1-ADC tumor antigen becomes an IDE161 predictive biomarker

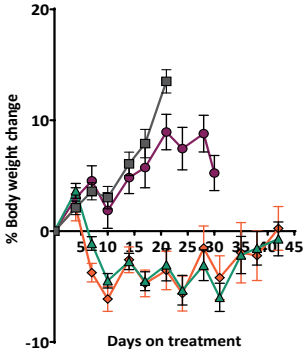


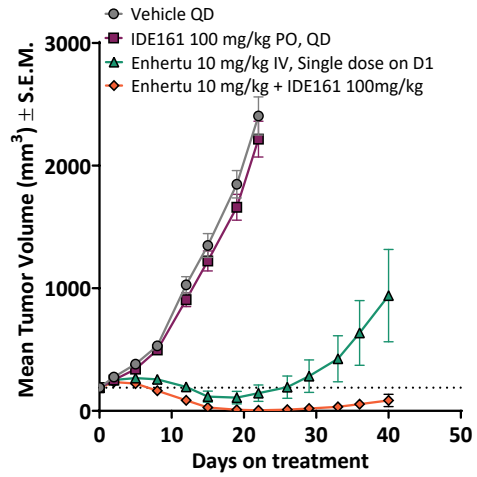
Selective IDE161-dependent cell death in Antigen + cells

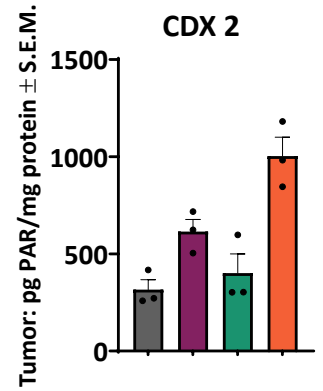
Robust combo efficacy with TOP1i in lung cancer CDX models

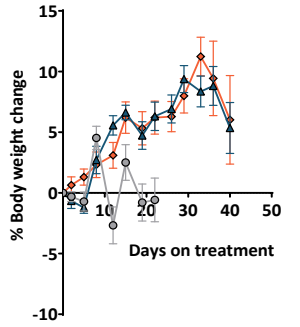










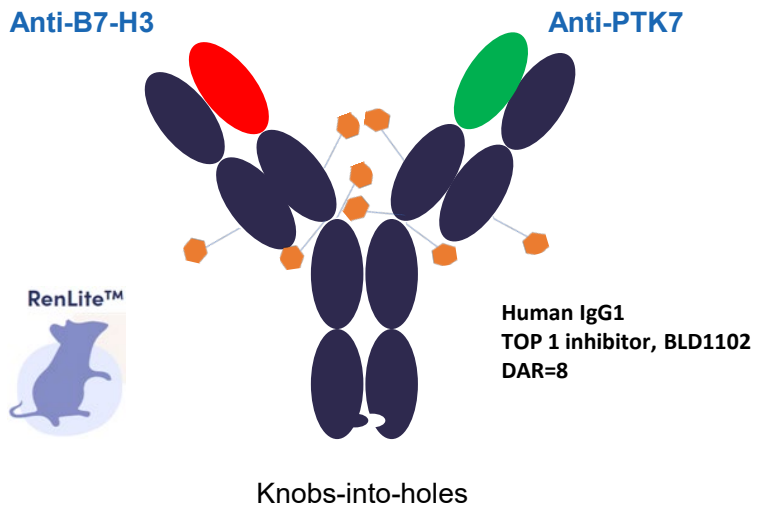


- 60% complete responses
- No BW loss beyond what is seen with TOP1i alone
- Increased PAR accumulation with combination

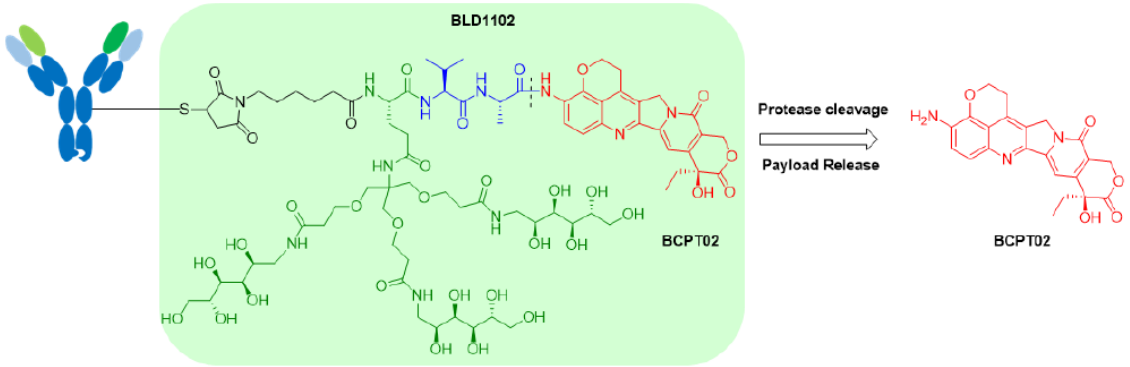
IDE034: Potential First-in-Class B7H3/PTK7 TOP1i Payload Bi-Specific ADC

Dual Tumor-Associated Antigen Targeting for Potential Enhanced Therapeutic Window

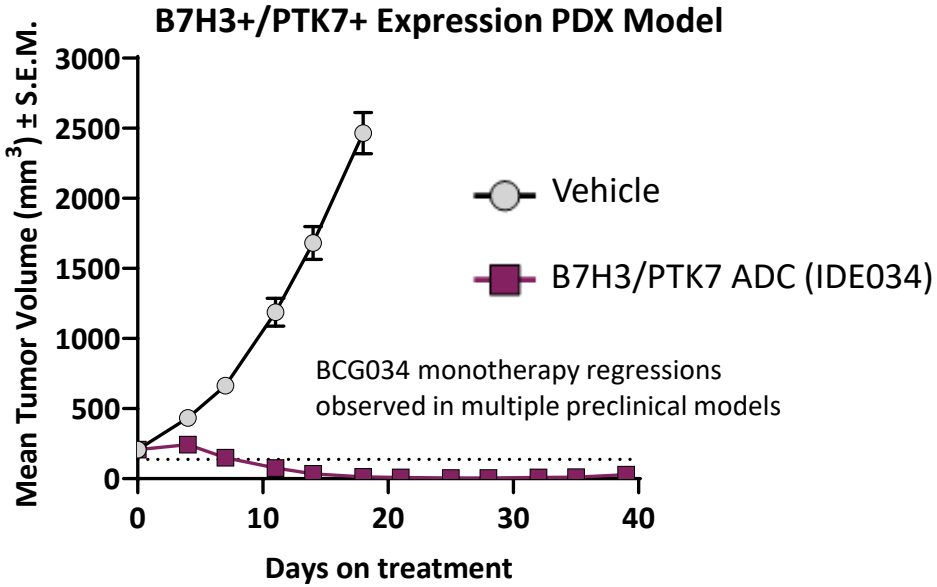
IDE034: B7H3/PTK7 Bispecific Ab-TOP1i ADC*



Proprietary Topoisomerase I Linker-Payload



B7H3+/PTK7+ Expression PDX Model



- Enhanced tumor versus normal cell binding
- Enhanced internalization efficiency
- Meaningful double-positive disease population**

Indication	B7H3/PTK7 Double Positive %
Lung	29.8%
Colorectal[1]	45.9%
HNSCC	27.1%
Ovarian	23.1%

Substantial addressable B7H3/PTK7 patient population

*IDE034: B7H3/PTK7 Top1i Bispecific ADC development candidate. Exclusive worldwide licensing and option agreement with Biocytogen
**IDEAYA analysis of Human Protein Atlas; [1] Human Protein Atlas annotates colorectal cancer as bowel cancer

IDE161 Phase 1/2 Clinical Development Plan in HRD Solid Tumors

Strategic Focus in Endometrial, Colorectal, Prostate, Breast & Other Solid Tumor Types

IDE161 Phase 1/2 – Monotherapy and Combination Clinical Development Plan

IDE161 Monotherapy Dose Escalation and Expansion in HRD Solid Tumors[1]

- Dose Escalation
- Expansion Cohort: ER+, Her2-, HRD Breast Cancer
- Expansion Cohort: HRD Tumors (EC, CRC, Prostate Cancer)
- Expansion Opportunities beyond HRD Tumors

IDE161 + KEYTRUDA® (pembrolizumab) in Endometrial Cancer

- MERCK (2) — IDE161+ KEYTRUDA in Endometrial Cancer – Targeting Q4'24 FPI

IDE161 Topo ADC Combination Opportunities Validated Preclinically

- BIOCYTOGEN (3) — IDE161+ IDE034 (B7H3/PTK7 Bispecific Ab-TOP1i ADC DC)

Activity in PARPi- and Platinum-Resistant Settings	Differentiated Sensitivity relative to PARPi's	Targeting Improved Safety Profile relative to PARPi's

Preliminary IDE161 monotherapy clinical efficacy observed, including RECIST 1.1 Responses and >50% reduction in PSA

ER+, Her2- Breast Cancer Patients with HRD Tumors → ~10% to ~14% of Breast Cancer

Facile peripheral PD Biomarker for PARGi based on measurement of PAR in blood samples (PBMC's)

FDA Fast Track Designation for IDE161 in BRCA1/2 Ovarian and Breast Cancers*

*Fast Track Designations include (i) Pretreated, Platinum-Resistant Advanced or Metastatic BRCA1/2 mutant Ovarian Cancer, and (ii) Pretreated, Advanced or Metastatic HR+, Her2-, BRCA1/2 mutant Breast Cancer
PARG = poly (ADP-ribose) glycohyrdolase; PAR = poly (ADP-ribose; PBMC = peripheral blood mononuclear cells, PSA = prostate specific antigen, EC = endometrial cancer, CRC = colorectal cancer
[1] Clinicaltrials.gov: NCT05787587
[2] Pursuant to Merck Clinical Trial Collaboration and Supply Agreement for IDE161 + Keytruda®, Merck's anti-PD-1 therapy; the Company will sponsor the study and Merck will provide Keytruda at no cost
[3] Pursuant to exclusive worldwide licensing and option agreement with Biocytogen

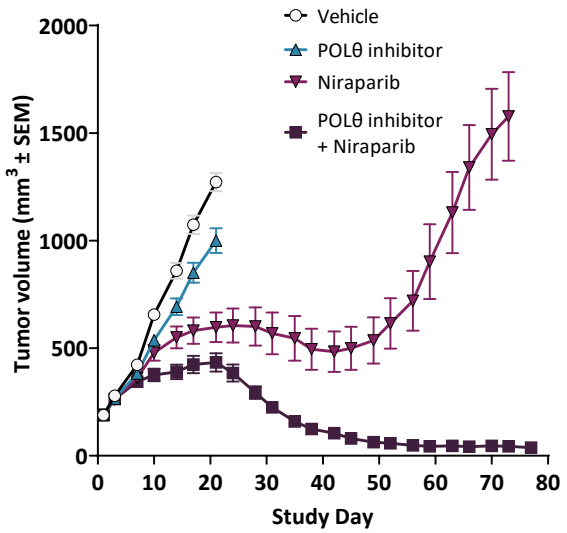
IDEAYA BIOSCIENCES

IDE705 (GSK101) : Potential First-in-Class Pol Theta Helicase Inhibitor

Phase 1 in Combination with Niraparib (PARPi)

Pol Theta Helicase *In Vivo* Activity

IDE705(GSK101) + PARPi

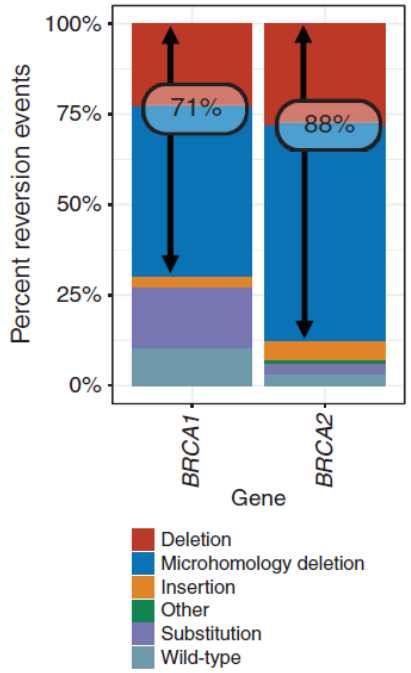


Observed Deep and Durable Responses in Multiple Xenograft Models

IDEAYA / GSK Data

BRCA 1/2 Clinical Reversions

BRCA Reversions Mediated by MMEJ



Cancer Res. 2020, DOI: 10.1158/2159-8290

Clinical Development Strategy

Pol Theta Helicase Inhibitor + PARP Inhibitor

Pol Theta Helicase Inhibitors Disrupt MMEJ Alternative DNA Damage Repair:

- Inhibit DSB Repair by MMEJ
- Dysregulate Replication Fork Stabilization

Potentiate PARPi Efficacy	Prevent PARPi Resistance	Overcome PARPi Resistance

Potential Clinical Opportunities

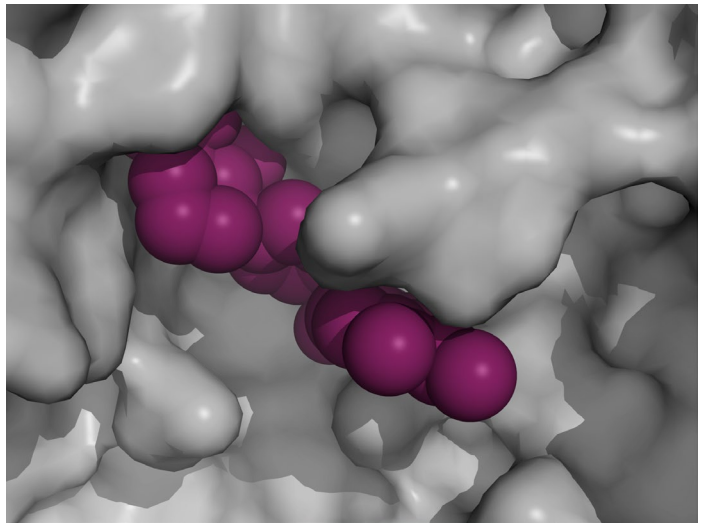
GSK Strategic Partnership: Global Royalties with GSK covering all Costs, ~$1B Milestones, incl up to $20M Preclinical / Ph1 Clinical Potential Combination with GSK's Zejula™, a PARP Inhibitor

IDEAYA's AI/ML Enabled Drug Discovery Platform and IND-Engine

IND Clearance and Multiple Potential First-in-Class Development Candidates (DCs) Targeted in Q4 2024

WRN Helicase

IDE275 (GSK959) Werner Helicase Development Candidate

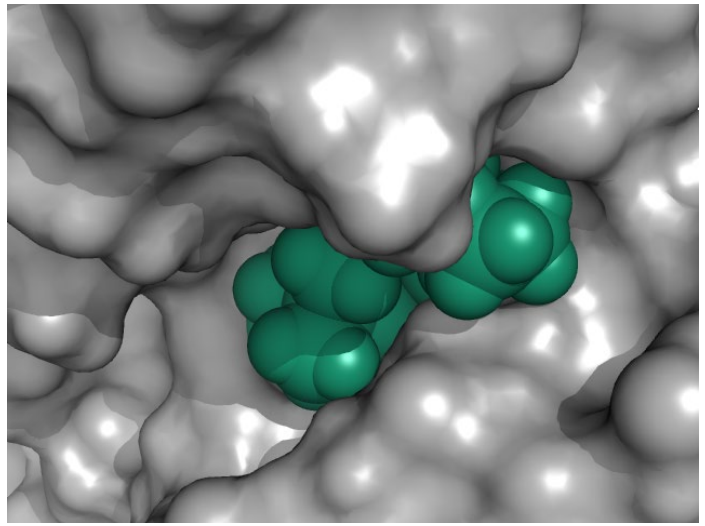


IND Clearance for Phase 1 trial*
MSI-High Tumor Agnostic

*Pursuant to GSK Collaboration

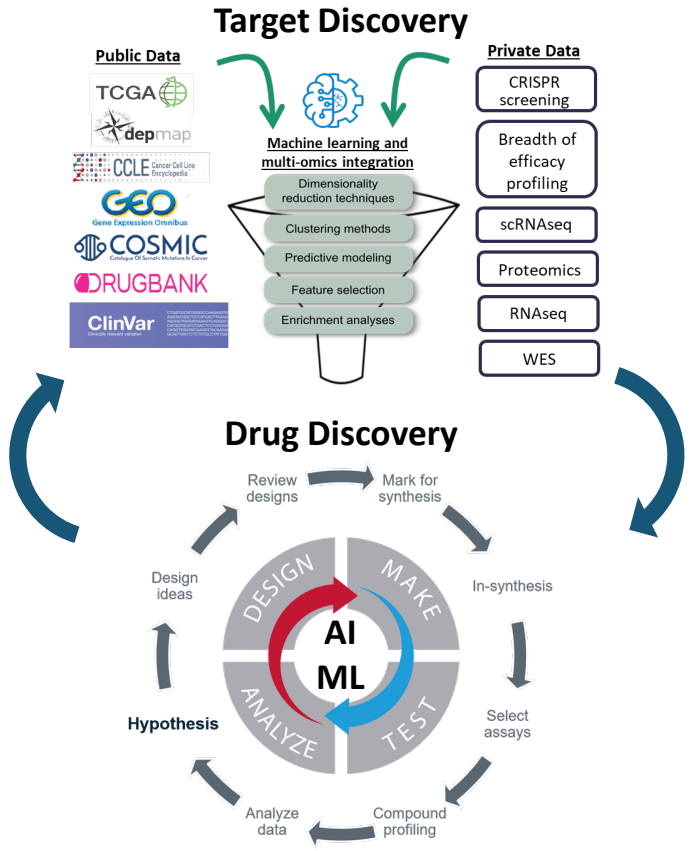
Multi-Pronged Strategy in MTAP$^{-/-}$

Next Generation Programs



Enabling wholly-owned rational combination with IDE397

AI/ML-Enabled IND-Engine



Targeting multiple DCs in Q4 2024

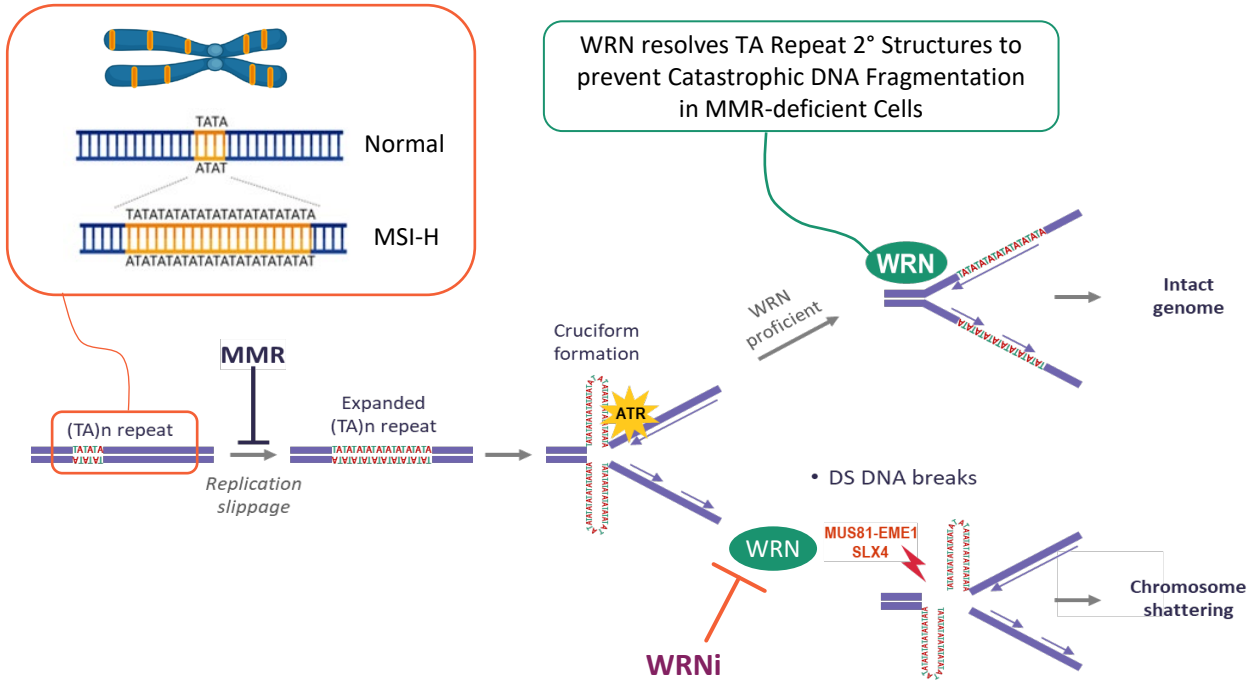
IDE275 (GSK959): Potential First-in-Class Werner Helicase Inhibitor

IND Clearance for Phase 1 Trial

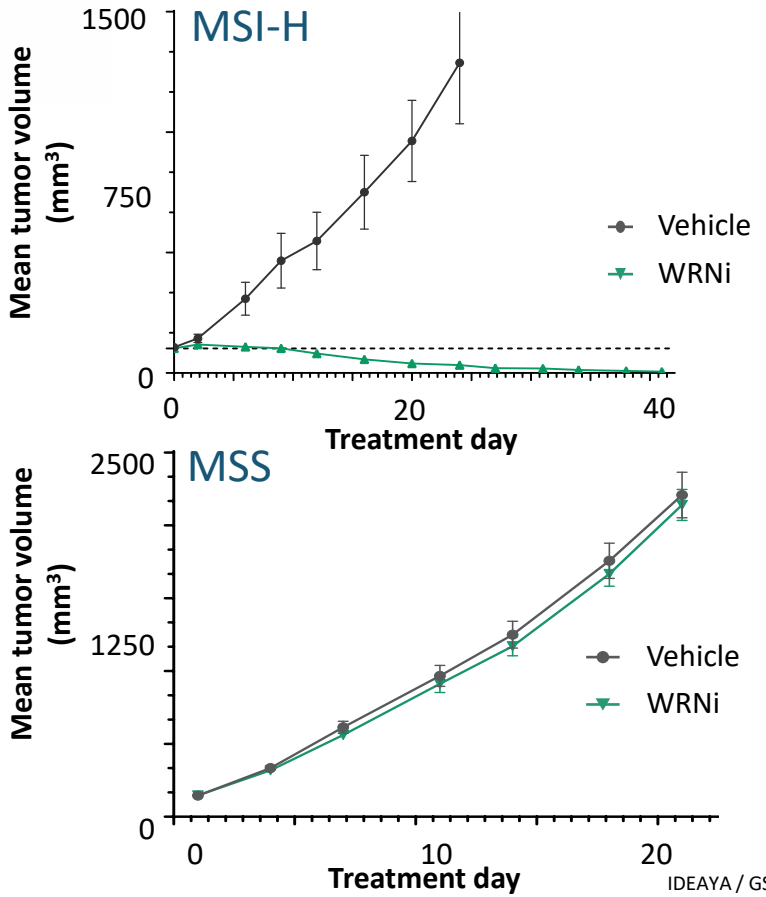
Werner Helicase Inhibitors Phenocopy Genetic SL in MSI-High Cancers

Nanomolar Potency, Biochemical and Cellular Activity, and Selectivity over other RecQ Helicases

Werner Helicase Synthetic Lethality in MSI-High Cancer Cells



Werner Helicase Synthetic Lethal with High-MSI



IDEAYA / GSK Data: AACR 2023

GSK Strategic Partnership: 50/50% US Profit Share and ex-US Royalties, ~$1B Milestones, incl up to $20M Preclinical / Ph1 Clinical; Cost Share 80% (GSK) / 20% (IDEAYA); Potential Combination with GSK's Jemperli™, a PD-1 IO Agent

Building a Fully-Integrated Biotech in Precision Medicine Oncology

Foundational Potential First-in-Class Clinical Pipeline and Drug Discovery Platform

CLINICAL PROGRAMS	DEVELOPMENT CANDIDATES	PRECLINICAL PROGRAMS
Ph 2/3 – Darovasertib [1] Ph 2 – IDE397 (MAT2A) [1] Ph 1 – IDE161 (PARG) [1] Ph 1 – IDE705 (Pol Theta Helicase) [2] Ph 1 – IDE275 (Werner Helicase) [2]	Targeting Multiple DCs in H2 2024, including in MTAP and potential first-in-class in KAT6 pathway IDE034: B7H3/PTK7 Bi-Specific ADC DC [3]	Multiple Potential First-in-Class Programs Advancing
5 Clinical Programs	8 Clinical Programs	≥9 Clinical Programs

Darovasertib Registration-Enabling Trial with Potential Accelerated Approval in HLA-A2(-) MUM and Ph3 registrational trial targeted in Neoadjuvant UM is tractable for commercial execution and provides path to potential product revenue to reinvest in broad *first-in-class* pipeline

Potential First-in-Class Precision Medicine Oncology Pipeline, including Darovasertib (Ph2/3), IDE397 (Ph 2), IDE161 (Ph 1), IDE705 / GSK101 (Ph 1), IDE275 / GSK959 (Ph 1), IDE034 (Targeting IND in 2025), and multiple DCs targeted in Q4'24, including in MTAP and KAT6 pathway

Strong Balance Sheet with ~$1.2B[4] and opportunity for milestones with cash runway into at least 2028

Pharma Collaborations include combinations with Pfizer, Amgen, Gilead, Merck, and GSK partnership with ~$2 billion[2] in potential milestones

(1) Clinical Trial Collaboration and Supply Agreements, independently with Pfizer (Darovasertib + Crizotinib), Amgen (IDE397 + AMG193), Gilead (IDE397 + Trodelvy®), and Merck (IDE161 + KEYTRUDA®); IDEAYA retains all commercial rights to its products
(2) IDE705 (GSK101) Pol Theta Program Cost Share = 100% GSK with ~$1B Milestones and WW Royalties; IDE275 (GSK959) Werner Helicase Program Cost Share = 80% GSK / 20% IDEAYA with ~$1B Milestones, 50/50 US Profit Share and Ex-US Royalties
(3) IDE034: B7H3/PTK7 Top1i Bispecific ADC development candidate. Exclusive worldwide licensing and option agreement with Biocytogen
(4) Includes aggregate of $1.2 billion of cash, cash equivalents and marketable securities as of September 30, 2024