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Unleashing the Power of the Immune System to Fight Cancer

Investor Presentation October 2024



Forward-Looking Statements



This presentation contains forward-looking statements, within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended and forward-looking information under applicable Canadian securities laws (such forward-looking statements and forward-looking information collectively referred to herein as "forward-looking statements"). Forward-looking statements contained in this presentation include are statements regarding our belief as to the potential, mechanism of action and benefits of pelareorep as a cancer therapeutic; our stated goals and objectives; our potential registration opportunities in breast and pancreatic cancer and the milestones and next steps associated therewith and the anticipated timing thereof; our anticipated cash runway; our key milestones in 2024 and beyond; our development strategy; and other statements related to anticipated developments in Oncolytics' business and technologies. In any forward-looking statement in which Oncolytics expresses an expectation or belief as to future results, such expectations or beliefs are expressed in good faith and are believed to have a reasonable basis, but there can be no assurance that the statement or expectation or belief will be achieved. Such forward-looking statements involve known and unknown risks and uncertainties, which could cause Oncolytics' actual results to differ materially from those in the forwardlooking statements. Such risks and uncertainties include, among others, the availability of funds and resources to pursue research and development projects, the efficacy of pelareorep as a cancer treatment, the success and timely completion of clinical studies and trials, Oncolytics' ability to successfully commercialize pelareorep, uncertainties related to the research and development of pharmaceuticals, uncertainties related to the regulatory process and general changes to the economic environment. We may incur expenses or delays relating to such events outside of our control, including public health crises such as pandemics and epidemics, which could have a material adverse impact on our business, operating results and financial condition. Investors should consult Oncolytics' quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Investors are cautioned against placing undue reliance on forward-looking statements. The Company does not undertake to update these forward-looking statements, except as required by applicable laws.

Pelareorep in Breast & Pancreatic Cancer: Overview & Highlights



Non-pathogenic, unmodified immunotherapy

- Targets cancer cells, but not normal cells
- Administered IV, delivers dsRNA into tumors
- Strong safety profile has been given to >1,100 patients
- 147 patents provide extensive IP protection

Pela activates the immune system

- Induces anti-tumor innate and adaptive immune responses
- Makes tumors visible to the immune system
- Synergizes with chemotherapy and immuno-therapeutics including checkpoint inhibitors
- Clinical evidence showing changes to TME

Clear registration path in two indications

- Strong efficacy signal in breast and pancreatic cancer
- Fast Track designation for both indications
- Efficient registration path identified for both indications with potential for accelerated approval for breast cancer

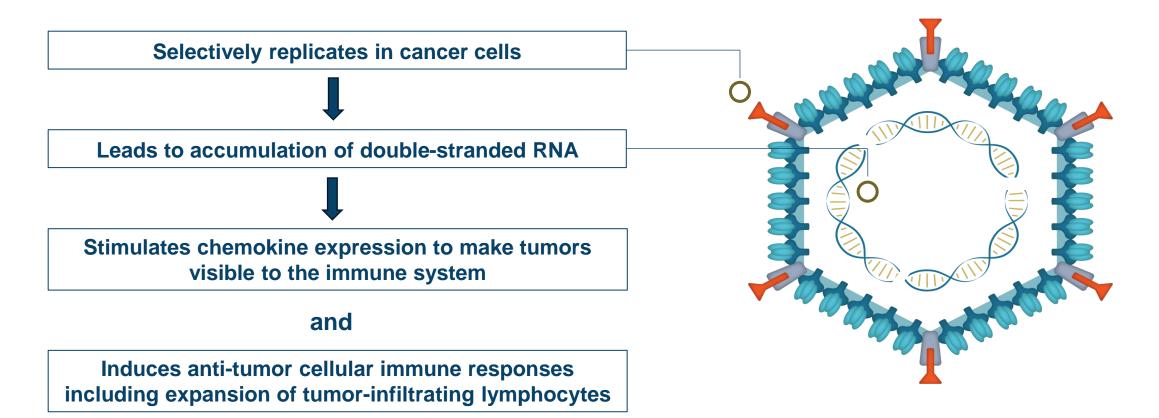
Experienced team

- Extensive oncology drug development experience
- Track record of success in bringing new drugs to the market
- Decades of experience in manufacturing and product development
- Distinguished Scientific Advisory Board

Pelareorep is a First in Class Immunotherapeutic Agent



- > Non-genetically modified, non-pathogenic reovirus
- > IV administration allows direct targeting of both primary and metastatic tumors
- > Manufactured at commercial scale; requires no special handling





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Pelareorep in HR+ / HER2- Breast Cancer



Pelareorep Offers New Options in the Evolving HR+/HER2-Advanced/Metastatic Breast Cancer Treatment Pathway



Hormonal and targe	Hormonal and targeted treatment lines		reatment lines
First-line treatment	Second-line treatment	Third-line treatments	Fourth-line treatments
Endocrine therapy	Endocrine therapy	Antibody-drug conjugate therapy, e.g., T-DXd (Enhertu)* Or	Chemotherapy
CDK4/6 inhibitors	CDK4/6 inhibitors	Traditional chemotherapy (if T-DXd ineligible)	
	Targeted therapy	Pelareorep + paclitaxel 3 rd -line option for pts ineligible for T-DXd	Pelareorep + paclitaxel 4 th -line option for pts who fail T-DXd [‡]

* Anticipated based on Destiny-Breast06 results (ASCO 2024)

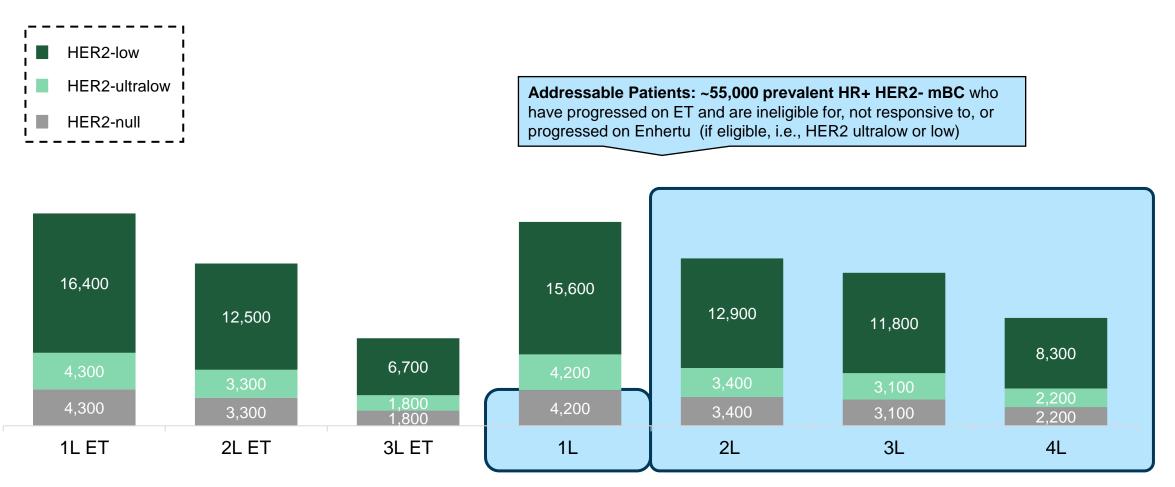
[‡]Due to progression on or inability to tolerate T-DXd

The HR+/HER2- mBC Segment Post Enhertu Represents ~55,000 Addressable Patients



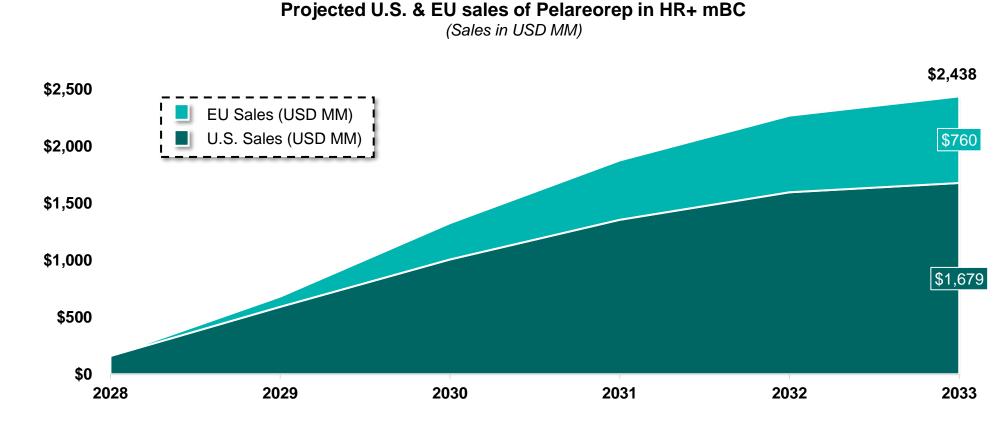


(# of patients in 1,000s, Not Mutually Exclusive)



Addressable Patients Methodology in Appendix. Sources: Gampenrieder, Simon Peter et al. "Landscape of HER2-low metastatic breast cancer (MBC): results from the Austrian AGMT_MBC-Registry." Breast cancer research : BCR vol. 23,1 112. 14 Dec. 2021, doi:10.1186/s13058-021-01492-x; Schettini, Francesco et al. "Clinical, pathological, and PAM50 gene expression features of HER2-low breast cancer." NPJ breast cancer vol. 7,1 1. 4 Jan. 2021, doi:10.1038/s41523-020-00208-2 Mehta, Sandhya et al. "Prevalent of 'HER2 ultra-low' among patients with advanced breast cancer with historical IHC0 status." Journal of Clinical Oncology vol. 42, 16. 29 May 2024, doi.org/10.1200/JCO.2024.42.16_suppl.e1315; Tarantino, Paolo et al. "HER2-Low Breast Cancer: Pathological and Clinical Andscape." Journal of clinical oncology : official journal of the American Society of Clinical Oncology vol. 38,17 (2020): 1951-1962. doi:10.1020/JCO.19.02488; DESTINY-BREAST04; D





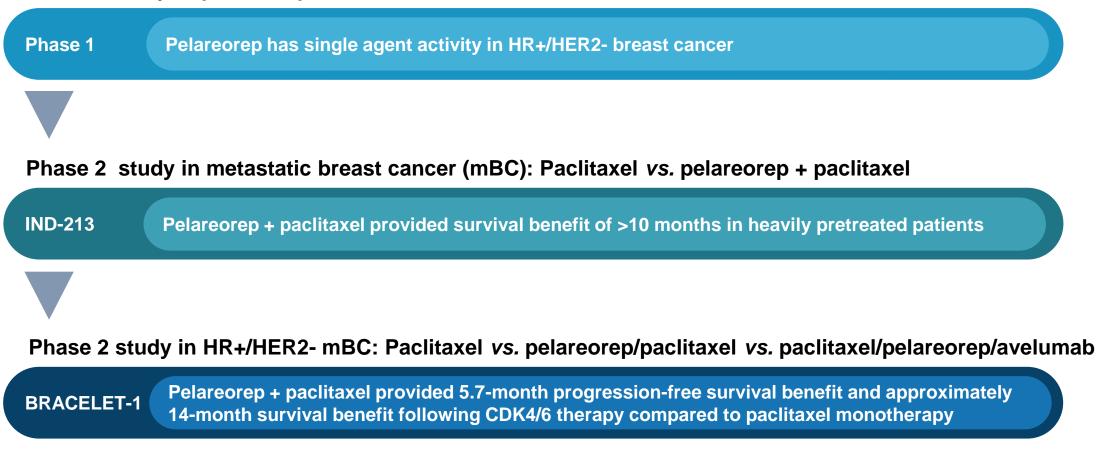
Treated patients

Total U.S Pela Patients	966	3,414	5,577	7,200	8,132	8,197
Total EU5 Pela Patients	-	995	3,517	5,745	7,416	8,376
Total US and EU5 Pela Patients	966	4,409	9,094	12,945	15,548	16,572

Sources: GlobalData HER2 negative BC Global Drug Forecast & Market Analysis to 2030; GlobalData Price Intelligence Database; Redbook; ICER



Phase 1 study of pelareorep in advanced breast cancer



Pelareorep Treatment Led to a Statistically Significant Improvement in mOS in Phase 2 Breast Cancer Trial IND-213



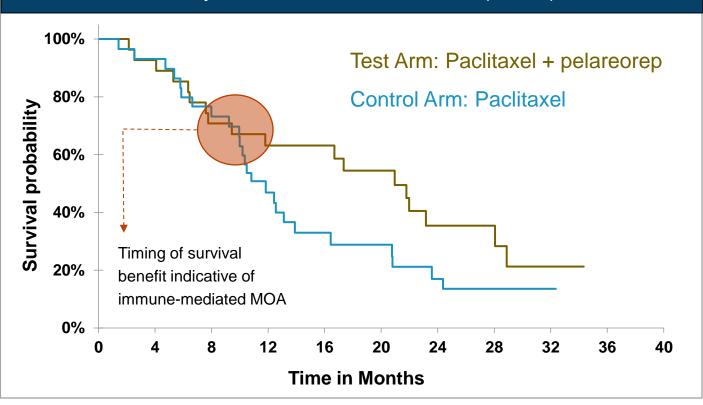
Phase 2 All Subtypes (n = 74)

HR	0.65
р	0.1 (powered to 90%)
mOS	17.4 months vs. 10.4 months
Test	n = 36
Control	n = 38

HR+/HER2- Patients (n = 57)

HR	0.60
р	0.1 (powered to 90%)
mOS	21.0 months vs 10.8 months
Test	n = 28
Control	n = 29

Overall survival for the HR+/HER2- patients in IND-213 study of metastatic breast cancer (n = 57)

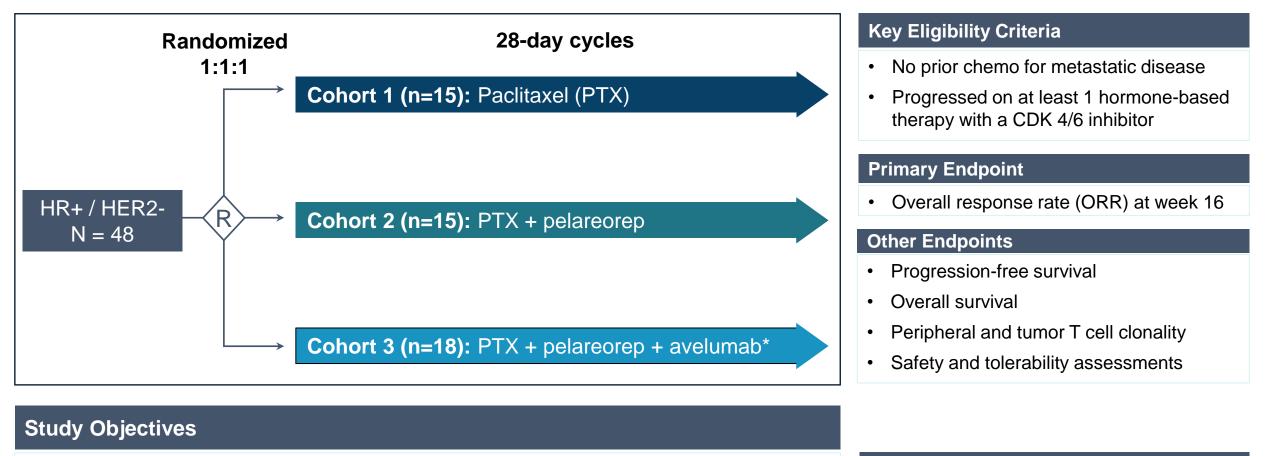


Near doubling of mOS in HR+/HER2- patients with pelareorep treatment

mOS: Median Overall Survival; HR: hazard ratio

BRACELET-1 Study Design





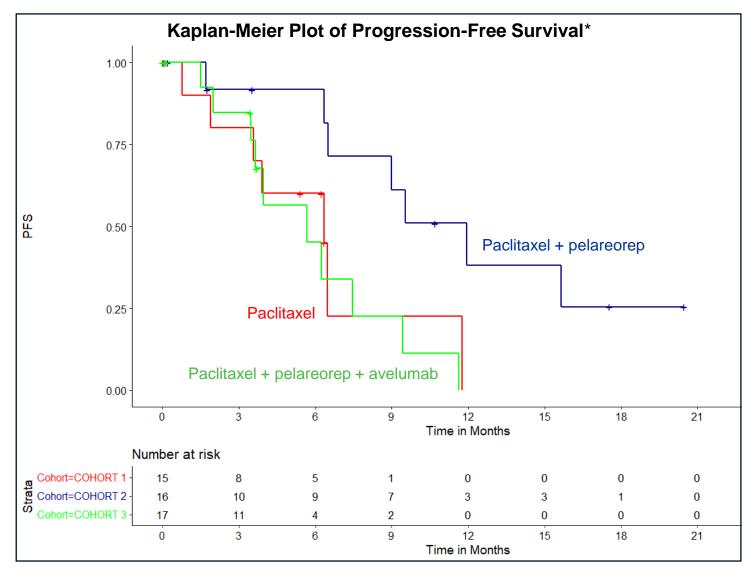
- To assess the clinical benefit of pelareorep combination therapy in patients who had received CDK4/6 therapy
- To assess whether avelumab added any additional benefit

Collaborators



BRACELET-1 Study Showed Robust Improvement in Progression-free Survival (PFS) for the Pelareorep + Paclitaxel Arm



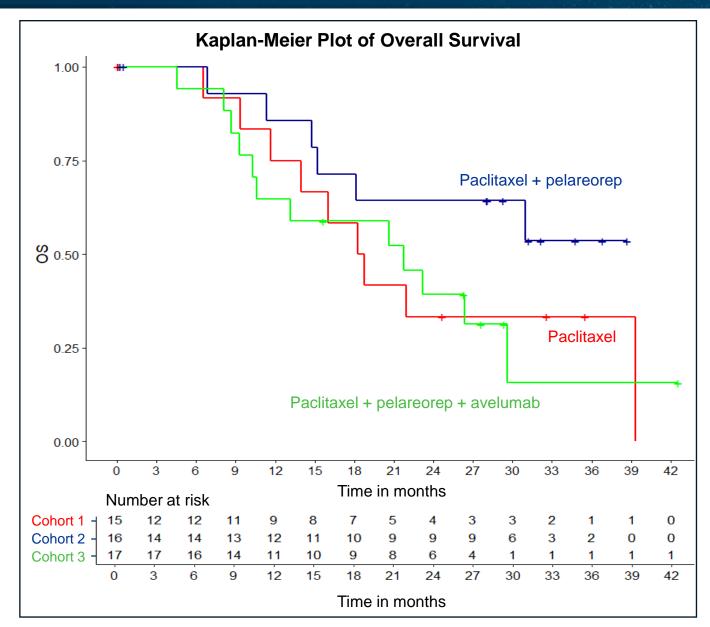


	Paclitaxel (PTX)	PTX + pelareorep	PTX + pelareorep + avelumab
Median PFS (months)	6.4	12.1	6.4
Hazard ratio vs. PTX	-	0.39	1.43

*Progression-free survival is defined as the time from randomization to the first documented disease progression per RECIST v1.1 or death from any cause, whichever occurs first.

BRACELET-1 Study Showed Meaningful Improvement in Overall Survival (OS) for the Pelareorep + Paclitaxel Arm





	Paclitaxel (PTX) Cohort 1	PTX + pela Cohort 2	PTX + pela + avelumab Cohort 3
Median OS (months)	18.2	Not reached Estimate: 32.1*	21.7
Hazard ratio vs. PTX alone	-	0.48	1.08

*This estimate assumes patients survived only until the next per protocol follow-up in 4 months. Had the patients survived only one day past their final follow-up visits, the estimated median OS would be 28.7 months.



Response Measures ¹	PTX Monotherapy (n=15)	PTX + Pelareorep (n=16)	PTX + Pelareorep + Avelumab (n=17)	
Confirmed ORR	13.3%	37.5%	17.6%	
Median PFS (months)	6.4	12.1	6.4	
		Not Reached		
Median OS (months)	18.2	Estimate: 32.1*	21.7	
Hazard Ratio for OS	_	0.48	1.08	
24-Month OS Rate (%)	33%	64%	39%	

¹ Tumor responses based on RECIST version 1.1 ORR: Overall response rate; PTX: paclitaxel PFS: progression-free survival; OS: overall survival *This estimate assumes patients survived only until the next per protocol follow-up in 4 months. Had the patients survived only one day past their final follow-up visits, the estimated median OS would be 28.7 months.

Pelareorep's Favorable Overall Safety Highlighted by BRACELET-1 Safety Summary



	Paclitaxel (PT	X) (n=12)	PTX + Pelareor	ep (n=16)	PTX + Pelareorep +	Avelumab (n=17)
Grade	Any	≥ 3	Any	≥ 3	Any	≥ 3
Alopecia	6 (50%)	-	9 (56%)	-	8 (47%)	-
Anemia	7 (58%)	-	5 (31%)	-	10 (59%)	1 (6%)
Anorexia	4 (33%)	-	5 (31%)	-	5 (29%)	-
Chills	-	-	7 (44%)	-	5 (29%)	-
Diarrhea	1 (8%)	-	6 (38%)	1 (6%)	8 (47%)	2 (12%)
Fatigue	5 (42%)	-	12 (75%)	2 (12%)	8 (47%)	1 (6%)
Infusion related reaction	1 (8%)	-	3 (19%)	-	9 (53%)	1 (6%)
Leucopenia	2 (17%)	-	3 (19%)	1 (6%)	11 (65%)	5 (29%)
LFT ³ Abnormality	3 (25%)	-	6 (38%)	2 (12%)	9 (53%)	2 (12%)
Lymphopenia	3 (25%)	-	3 (19%)	1 (6%)	4 (24%)	2 (12%)
Nausea	4 (33%)	-	7 (44%)	-	8 (47%)	-
Neuropathy	3 (25%)	-	8 (50%)	1 (6%)	10 (59%)	1 (6%)
Neutropenia	3 (25%)	1 (8%)	5 (31%)	3 (19%)	10 (59%)	6 (35%)
Proteinuria	2 (17%)	-	6 (38%)	-	4 (24%)	1 (6%)
Pyrexia	-	-	8 (50%)	-	11 (65%)	-

Fifteen Most Common Adverse Events^{1,2} as Attributed to Study Drug(s)

Safety data presented by Clark et al. at ASCO 2023, ¹Adverse Events collected using CTCAE V5.0, ²Only the 45 randomized patients who received any study therapy included in this analysis, ³ Liver function test abnormality



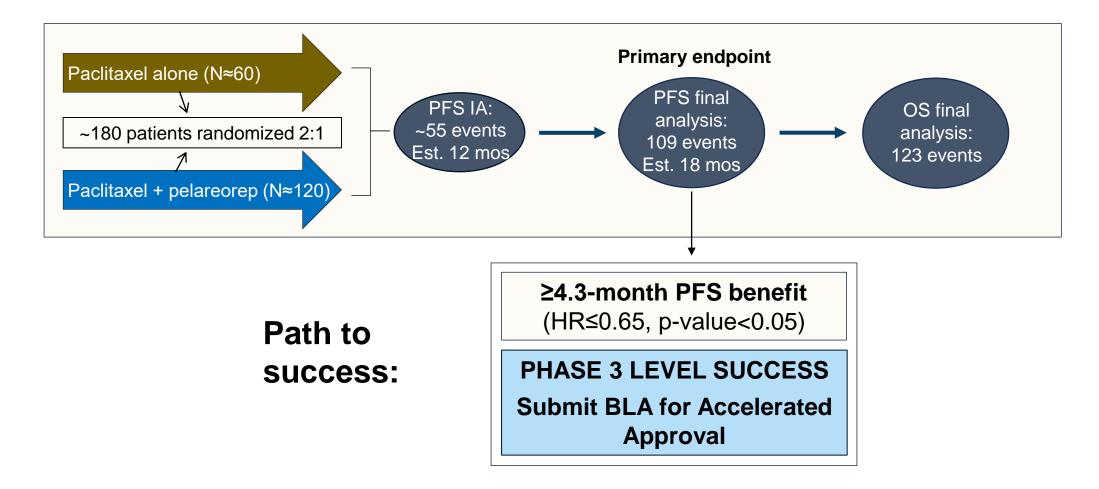
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Licensure Pathway Plan & FDA Type C Meeting Feedback



Registration-Enabling Phase 2 Study in HR+/HER2- mBC Patients





> 4.3-month PFS benefit target achievable based on BRACELET-1 results (5.7-month PFS benefit)

Licensure path based on the approach used by Ibrance (PALOMA-2) and Enhertu (DESTINY-01)

mBC: metastatic breast cancer; PFS: progression-free survival; OS: overall survival; IA: interim analysis





Summary of key outcomes

- FDA agreed that the proposed study population is appropriate (i.e., patients who failed hormonal therapy and received either 0 or 1 line of ADC therapy)
- FDA agreed that PFS is acceptable primary endpoint. They noted that OS should also be formally tested.
- FDA provided guidance on what constitutes a clinically meaningful benefit

General comments:

 The tone of the discussion was very collegial with a thoughtful dialogue between Oncolytics and the FDA medical reviewers



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Pelareorep in Gastrointestinal Cancer





Phase 1/2 multiple indication biomarker, safety & efficacy study

Success Criteria ≥ 3 responses

Success Criteria \geq 6 responses



Primary Endpoints: Safety ORR

Secondary Endpoints: PFS, OS

Exploratory Endpoints: Biomarker and MOA assessments

Unresectable Anal Cancer ≥2L n=10

Advanced / Metastatic

Pancreatic Cancer

1L n=12

Newly Diagnosed

Pancreatic Cancer

1L n=15



Success Criteria ≥ 2 responses

Pelareorep + mFOLFIRINOX +/- Atezolizumab

Pelareorep + Atezolizumab + Gemcitabine + Nab-paclitaxel

Efficacy Signals Shown in Two Gastrointestinal Cancers



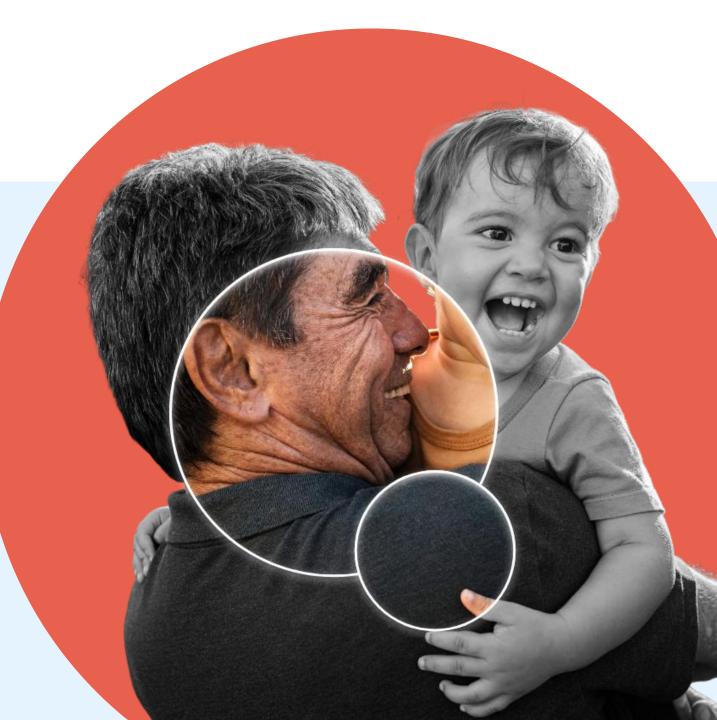
	First-line Advanced / Metastatic Pancreatic Cancer	Second-line or Later Anal Cancer
Status	Phase 1/2 updated data reported October 2023	Phase 1/2 initial data reported November 2023
Key Data	62% Objective response rate 7.2 months Median PFS 10.6 months interim Median OS 46% 12-month survival rate	37.5% Objective response rate Including a complete response
Next Steps	Advancing to a licensure-enabling study	Expansion of enrollment to confirm efficacy signal

Pancreatic cancer program has U.S. FDA Fast Track Designation

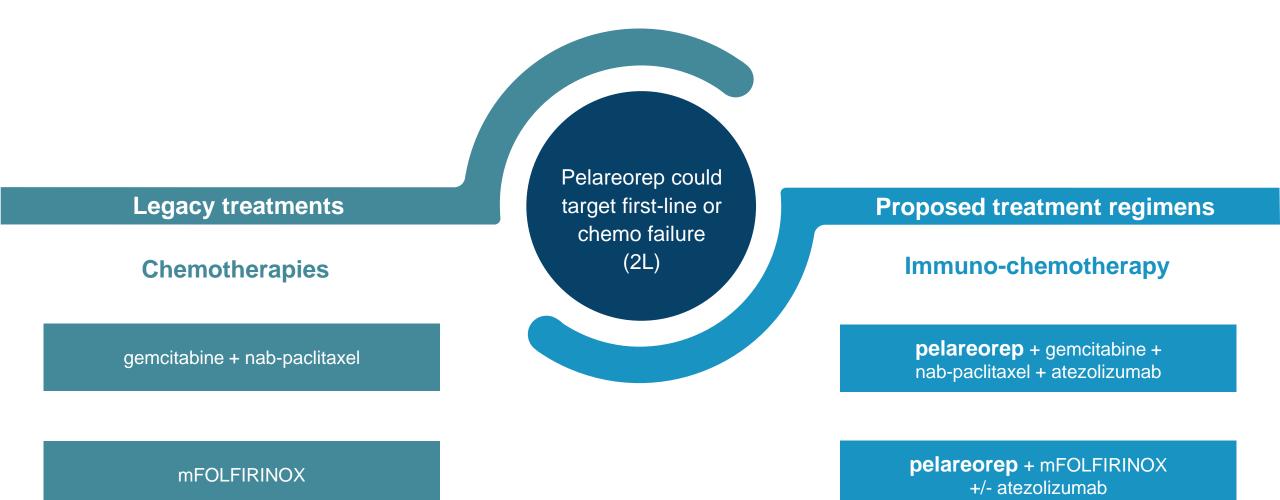


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Pelareorep in Metastatic Pancreatic Cancer

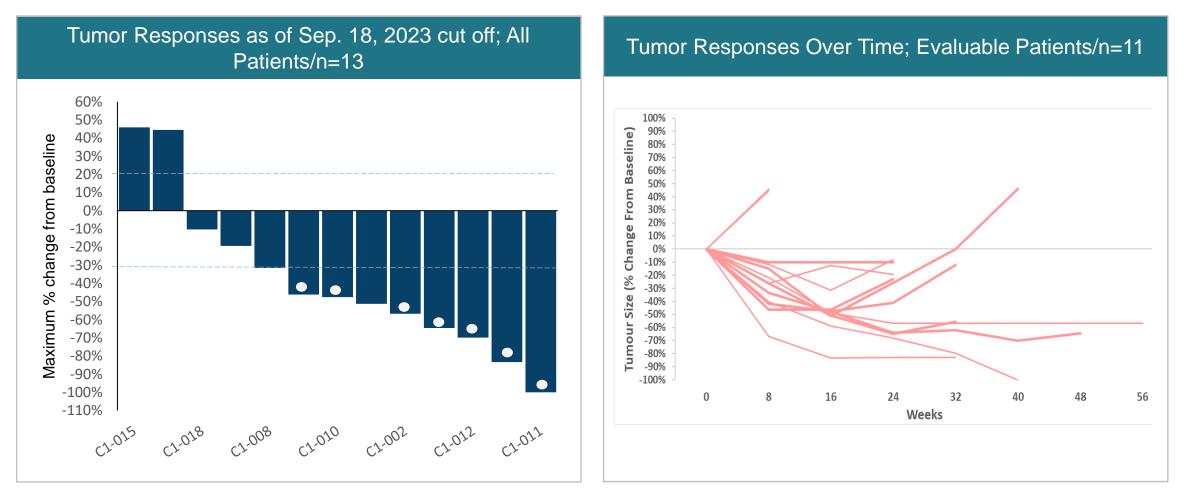






PDAC GOBLET Results Showing 62% ORR, Nearly Triple The Rate Seen in Prior Studies





Dotted lines represent cut-offs for PD (+20%) and PR (-30%)

Patients with a white dot have confirmed responses (2 or more consecutive scans with PR or CR)

Next Steps: Finalize GCAR PDAC Registrational Trial Protocol and Initiate Study



Patient Population:

- Patients receiving 1L treatment for PDAC
- Prior Treatments: None
- Adaptive trial design to be based on positive GOBLET cohort 1 results

Treatment Regimen:

 Randomized trial of pelareorep + atezolizumab + gemcitabine + nab-paclitaxel vs. gemcitabine + nab-paclitaxel

Registrational Endpoints:

- Primary Endpoint: Overall Survival
- Secondary Endpoints: Progression-Free Survival, Overall Response Rate, and Translational Data



Fast Track Designation

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Trial plan to include study size, timing for the first interim analysis, and definition of clinical and translational endpoints

mFOLFIRINOX Cohort Design



Strategic rationale: to investigate the use of pelareorep with another commonly used treatment regimen

Patient Population:

- Newly diagnosed metastatic PDAC patients (as defined by RECIST 1.1)
- To be supported by PanCAN Therapeutic Accelerator Grant

Treatment Regimen:

Phase 1/2 randomized trial of pelareorep + mFOLFIRINOX vs.
 mFOLFIRINOX + pelareorep + atezolizumab (n=15/arm in Stage 1)

Endpoints: Based on Simon two-stage screened selection design:

- **Stage 1**: success criteria of \geq 6 responses in the first 30 subjects
- **Stage 2**: success of ≥ 13 responses (41%):
- Study to include Translational Data



Safety run-in completed in Q3 2024

Pancreatic Cancer Opportunity Driven by Promising GOBLET Phase 1/2 Data & Supported by FDA Fast Track Designation



GOBLET Study Shows Increased ORR

>>

Studies Show Survival Benefit

Favorable Overall Safety

Consistent Translational Data

Registrational Trial Plan and Beyond

- An ORR of 62% was observed, representing a near doubling from historical controls compared to historical control trials¹⁻⁴
- >> Prior studies also showed clinically meaningful improvements in survival

» GOBLET data indicate the treatment has been well tolerated with no safety concerns

>> Translational data from GOBLET show that patients with increases in blood TILs showed a decrease in tumor volumes

- » Registration-enabled study protocol being finalized after pelareorep selected for inclusion by GCAR
- >> \$5M PanCAN grant to explore pelareorep/mFOLFIRINOX regimen, H2 2024 safety run-in complete

ORR: objective response rate; mPFS: median progression-free survival; mOS: median overall survival; TILs: tumor-infiltrating lymphocytes; GCAR: Global Coalition for Adaptive Research; mFOLFIRINOX: modified FOLFIRINOX; PanCAN: Pancreatic Cancer Action Network; Sources: 1. Von Hoff D et al. N Engl J Med 2013; 369:1691-1703 DOI: 10.1056/NEJMoa1304369; 2. O'Reilly et al. Eur J Cancer. 2020 June ; 132: 112–121. DOI:10.1016/j.ejca.2020.03.005; 3. Karasic et al. JAMA Oncol. 2019 Jul 1;5(7):993-998. DOI: 10.1001/jamaoncol.2019.0684; 4. Tempero et al. Ann Oncol. 2021 May;32(5):600-608. DOI: 10.1016/j.annonc.2021.01.070.



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Pelareorep in ≥ Second-Line Unresectable Anal Cancer



Positive GOBLET Anal Cancer Data Meets Success Criteria, Expanding Enrollment, Highlights Synergy with CPI



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Presented November 9, 2023 at the 2nd International Multidisciplinary Anal Cancer Conference (IMACC)

Patient Population:

- Patients with 2L, unresectable squamous cell carcinoma of the anal canal (SCCA)
- Prior treatments included chemotherapy and radiation therapy

Study Design & Treatment Regimen:

 Open-label, single arm, Simon Two-stage study of pelareorep + atezolizumab (n=10)

Enrollment Expanded:

 Stage 1 success criteria met; Stage 2 enrollment (18 patients) ongoing

Combined results could lead to a single-arm registration study

ORR of 37.5%, with 1 CR ongoing at 12 months and 2 PRs Data satisfied the prespecified success criteria for the study Follow-up is ongoing

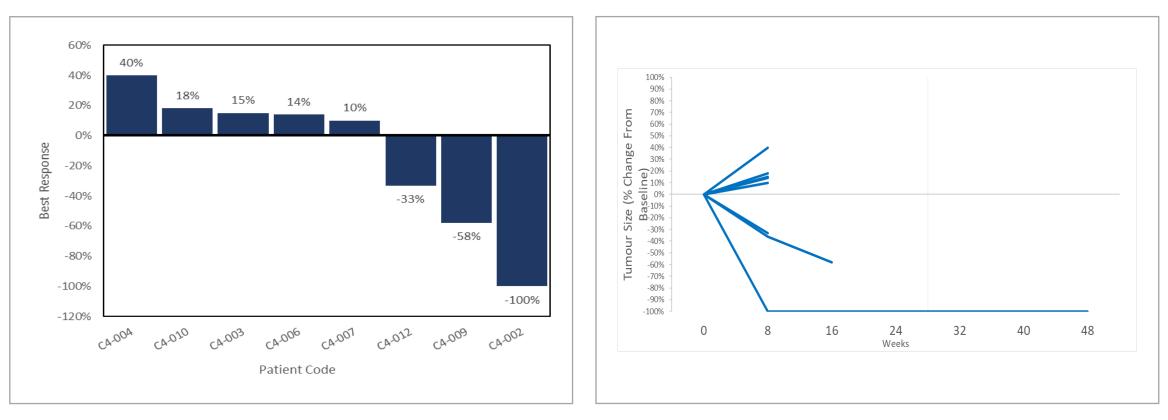
CPI: Checkpoint Inhibitor; 2L: Second-Line; ORR: objective response rate; CR: complete response; PR: partial response

Pelareorep-Atezolizumab Combination in Anal Cancer, ORR Exceeds Historical Efficacy Rates of Like Studies



ORR of 37.5% meets the pre-specified efficacy success criteria. Of 8 evaluable patients:

- 1 CR (ongoing at 12 months)
- 2 PR (one at week 8 and one ongoing at week 16)
- ~11% Average ORR reported in historical control trials of checkpoint inhibitor therapies¹⁻³



ORR: objective response rate; CR: Complete Response; PR: Partial Response; Sources: 1. <u>Sheela Rao</u> (Frontier Oncol) 2022; 2. Marabelle et al Lancet Oncology (2022)/NCT02628067; 3. Sara Lonardi (2021) J. Immu Cancer/<u>NCT03944252</u>;



Intellectual Property, Management Team, Financials, Pipeline, Additional Information



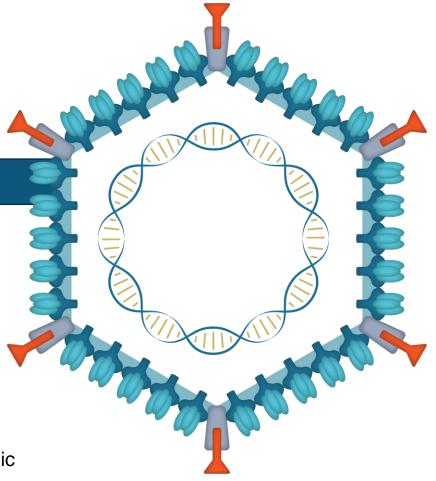


149 patents issued worldwide, including 13 US and 7 Canadian

14 pending applications worldwide

Pelareorep issued patent claims cover:

- Compositions of matter comprising pelareorep
- Patent rights extend to at least the end of 2031
- Pharmaceutical use of pelareorep to treat neoplasia and cellular proliferative diseases
- Combination therapy with radiation, chemotherapy and/or immunosuppressants
- Methods for manufacturing pelareorep and screening for susceptibility to pelareorep
- Upon approval, eligible for minimum 12 years of U.S. market exclusivity for new biologic



Innovative Leadership Team with Strong Immuno-oncology, Business Development, Clinical Trial and Finance Expertise





Matt Coffey, Ph.D., MBA President and CEO



Kirk Look, CA, MSJ Chief Financial Officer



Thomas Heineman, M.D., Ph.D. Chief Medical Officer



Allison Hagerman, PEng, PMP, MBT VP, Product Development



Christophe Degois VP, Business Development



Amy Levin, RN, BSN VP, Clinical Operations

Genentech

















Financials Overview



Financial Overview		Research Coverage	
Ticker	ONCY: NASDAQ ONC: TSX	Patrick Trucchio	H.C. Wainwright & Co.
Avg. Daily Volume (1 mo*)	143,061	John Newman	Canaccord Genuity
Shares Outstanding	76,986,033	Jason McCarthy	Maxim Group
Market cap ¹	~\$79 M	Douglas Miehm	RBC Capital Markets
Cash ²	\$24.9 M	Louise Chen	Cantor Fitzgerald
HQ	San Diego, CA / Calgary, AB, Canada	Douglas Loe	Leede Jones Gable
		Soumit Roy	JonesTrading
g days from June 26, 2024 – July 29, 202	4 [.] 1. Market Cap as of Aug. 1, 2024 [.]	Rahul Sarugaser	Raymond James

2. Cash as of June 30, 2024

Pelareorep Has Expansive Potential, Starting with Breast and Gastrointestinal Cancers



Program	Collaborator	Combination	Phase 1	Phase 2	Registration-Enabling Study	Milestone
BREAST CANCER						
BRACELET-1 HR+/HER2- mBC	Pfizer MERCK	pela + PTX				OS data reported in Q3 2024
Planned Study	TBD	pela + PTX				Registrational Study Plan H1 2024
GASTROINTESTINAL (CANCERS					
GOBLET cohort 1 1L Adv/Metastatic PDAC	Roche	pela + gem + nab-PTX + atezo				OS data pending
Adaptive Study 1L Adv/Metastatic PDAC	Roche GCAR	pela + gem + nab-PTX + atezo				Study initiation 2025
GOBLET cohort 5 Newly Diagnosed PDAC	Roche PANCREATIC CANCER ACTION NETWORK	pela + mFOL +/- atezo				Safety run-in complet Q3 2024
GOBLET cohort 4 ≥2L Unresectable Anal Cancer	Roche	pela + atezo				Enrollment Expansio H1 2024

Cancer



Q4 2024	H1 2025	H2 2025	2026 - 2027
 GI Cancer GOBLET study mFOLFIRINOX PDAC cohort safety run-in enrollment update 	Breast Cancer First patient enrolled in registration-enabling mBC study	Breast Cancer Translational data GI Cancer GOBLET study	 Breast Cancer H1 2026: PFS interim analysis, approx. 55 events
	GOBLET study mFOLFIRINOX PDAC cohort safety update	GOBLET study mFOLFIRINOX PDAC stage 1 data GOBLET study anal cancer cohort efficacy data update	H2 2026: last patient enrolled H1 2027: PFS readout

Why Did Avelumab Eliminate the Benefit of Pelareorep?



Avelumab is the only licensed anti-PD-L1 Ab with a native Fc region that retains FcγR binding

Hypothesis:

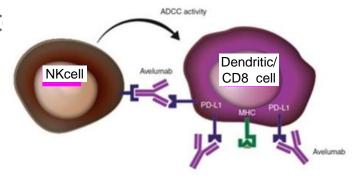
Binding of avelumab to Fc receptors impairs the expansion of T cell clones thereby diminishing the generation of potentially beneficial pelareorep-induced immune responses

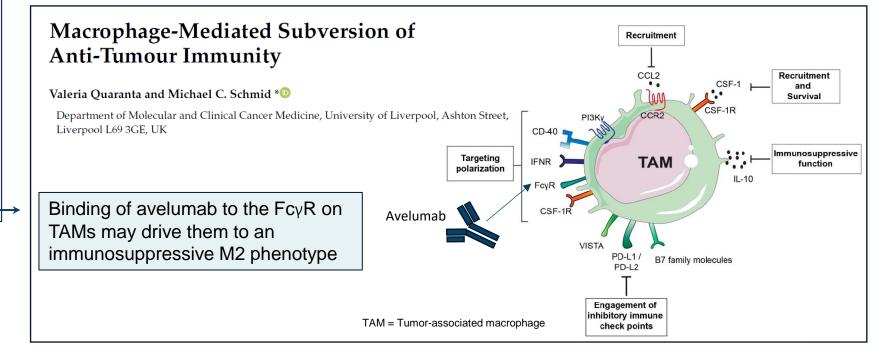
Possible mechanisms are shown

Evaluation of immune cell subsets of cancer patients treated with Avelumab, a fully human IgG1 anti-PD-L1 MAb capable of mediating ADC of human tumor cells

Lauren Lepone¹, Renee Donahue^{1*}, Italia Grenga¹, Caroline Jochems², Kwong-Yok Tsang¹, Simon Metenou¹, Jacob Richards¹, Christopher R Heery¹, Ravi Madan³, James L Gulley⁴, Jeffrey Schlom¹

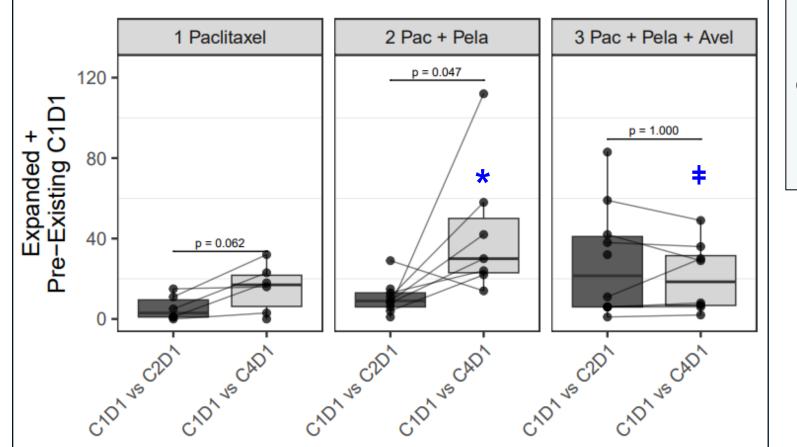
Avelumab binding to the $Fc\gamma R$ on NK cells may induce ADCC-mediated killing of T cells





T Cell Expansion in BRACELET Patients Blocked by Avelumab





Pelareorep + paclitaxel:

Statistically significant expansion of T cell clones at Cycle 4 Day 1 (*)

Pelareorep + paclitaxel + avelumab :

No T cell expansion at Cycle 4 Day 1 (**‡**)

Pac = paclitaxel; Pela = pelareorep; Avel = avelumab

C = cycle; D = day

Pelareorep Expected to be Efficacious Following Progression on Enhertu (T-DXd)



- Pelareorep is efficacious in heavily pre-treated breast cancer patients
- T-DXd failure results from reduced HER2 expression or deruxtecan resistance neither should affect pelareorep's efficacy¹
- T-DXd has no known immunosuppressive effects that would impair pelareorep's MOA
 - T-DXd does not directly target immune cells, which are key to pelareorep's activity²
 - T-DXd is associated with leukopenia or neutropenia; however, these are transient are not expected to affect pelareorep's efficacy based on prior studies
- T-DXd may stimulate anti-cancer immunity and enhance the effects of immune therapies
 - o Deruxtecan stimulates innate and adaptive immune responses through DNA damage-mediated effects¹
 - o T-DXd enhances tumor-infiltrating CD8+ T cells and MHC class I expression on tumor cells in mice¹
 - o T-DXd induces CXCL9/10/11 on HER2-positive gastric cells resulting enhanced anti-tumor immunity²

BRACELET-1 Study Groups are Well-balanced for Key Attributes



	PTX Monotherapy N=15	PTX + Pelareorep N=16	PTX + Pelareorep + Avelumab N=17	
Age	60 (46-74)	52.5 (38-71)	59 (37-70)	
Performance status (ECOG score)				
0	10 (67%)	11 (69%) 10 (59%)		
1	5 (33%)	5 (31%)	7 (41%)	
White race	12 (80%)	12 (75%)	13 (76%)	
Stage at diagnosis				
1-111	8 (53%)	4 (25%)	7 (42%)	
IV	7 (47%)	12 (75%)	10 (59%)	
Visceral disease	12 (80%)	13 (81%)	15 (88%)	
Prior lines of therapy				
Neo/adjuvant taxane ¹	6 (40%)	4 (25%)	6) 5 (29%)	
Targeted therapy (alpelisib or everolimus)	2 (20%)	1 (12%)	3 (18%)	
Subsequent therapy ²	Chemotherapy: 10 Radiation only: 1 No treatment: 1 ADC: 4	Chemotherapy: 10 Radiation only: 1 No treatment: 2 ADC: 2	Chemotherapy: 15 Radiation only: 0 No treatment: 2 ADC: 1	

¹ Patients receiving taxanes in the neoadjuvant or adjuvant setting must have had a disease-free interval of at least 12 months prior to enrollment.

² Subsequent therapy is defined as any breast cancer treatment received after discontinuation of study treatment, e.g., due to radiologic or clinical disease progression or to an adverse event.

Benefit of Pelareorep-based Therapy Compare Favorably to T-DXd



Endpoint	Destiny-Breast04 Chemotherapy vs. T-DXd 1-line prior chemotherapy		Destiny-Breast06 Chemotherapy vs. T-DXd No prior chemotherapy		BRACELET-1 Pac vs. Pac + Pela No prior chemotherapy	
	TPC	T-DXd	TPC	T-DXd	Paclitaxel	Pac-Pela
Confirmed ORR	16.3%	52.6%	32.2%	56.5%	13.3%	37.5%
PFS (HR [95% CI])	5.4 mo	mo) 10.1 mo	+5.1 8.1 mo	mo) 13.2 mo	6.4 mo	mo 12.1 mo
	(0.51 [0.40, 0.64])		(0.62 [0.51, 0.74])		(0.39 [0.12, 1.24])	
OS (HR [95% CI])	17.5 mo	23.9 mo	NR	NR	18.2 mo	32.1 mo*
	(0.64)		NA		(0.48 [0.17, 1.35])	

T-DXd: Trastuzumab deruxtecan

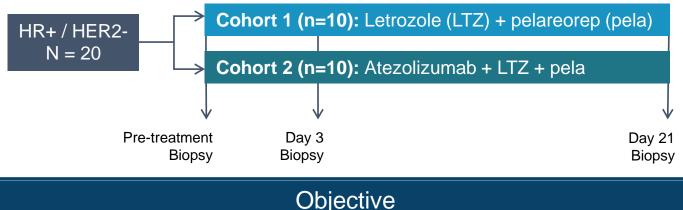
- TPC: Capecitabine, nab-paclitaxel, paclitaxel
- Pac: Paclitaxel
- Pela: Pelareorep
- NA/NR: Not available/Not reached

*This estimate assumes patients survived only until the next per protocol follow-up in 4 months. Had the patients survived only one day past their final follow-up visits, the estimated median OS would be 28.7 months.

Clinical Data Confirm Pelareorep's Immunotherapeutic Mechanism of Action in HR+ / HER2- Breast Cancer



AWARE-1 Window-of-opportunity Study Design



Objective

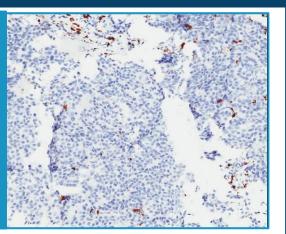
Confirm pelareorep's MOA and evaluate its potential to synergize with ICIs via biomarker measurements such as CeITIL score, T cell infiltration and PD-L1 expression

Key Takeaways

-Pelareorep remodels TMEs by enabling the influx of CD8+ and memory T cells into the tumor and training them to fight cancer -Changes in the peripheral blood T cell population may be a predictive biomarker of pelareorep therapy

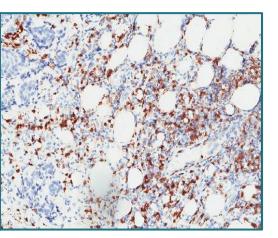
Pre vs. Post Treatment CD8+ T Cell Infiltration

Before treatment: CD8+ T cell staining



~3 weeks post-treatment

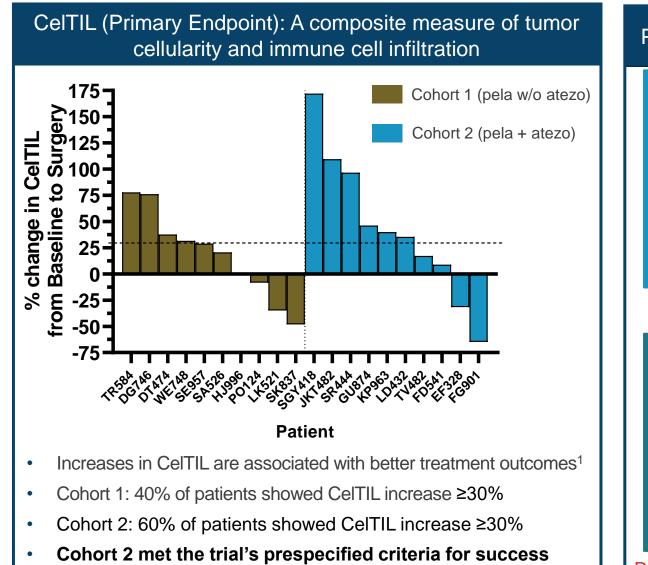
After treatment: CD8+ T cell staining



Brown staining shows CD8+ T cells

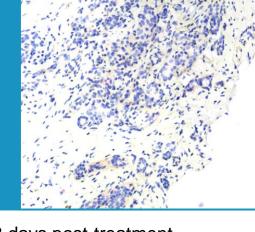
AWARE-1 Achieved Primary Objective



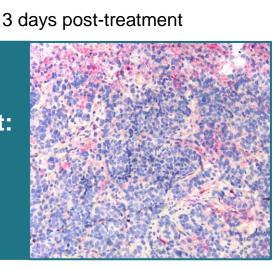


Pre vs. Post Treatment Tumor PD-L1 Expression





After treatment: Tumor PD-L1 expression



Red staining indicates PD-L1 expression

Pela: Pelareorep; Atezo: Atezolizumab

¹Nuciforo P et al. A predictive model of pathological response based on tumor cellularity and tumor-infiltrating lymphocytes (CeITIL) in HER2-positive breast cancer treated with chemo-free dual HER2 blockade. Ann Oncol, 2017