ONCOLYTICS BIOTECH INC

Unleashing the Power of the Immune System to Fight Cancer

Investor Presentation
April 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 are collectively referred to herein as "forward-looking statements"). Forward-looking statements contained in this presentation include 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 forward-looking 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.

Investment Opportunity Driven by Robust Pelareorep Results

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Robust Clinical Data in Breast and Pancreatic Cancer	Randomized and Open-Label Phase 1/2 studies demonstrate meaningful improvements in overall response rate, progression-free survival, and overall survival
Differentiated Approach to Immunotherapy	Systemically dosed immunotherapeutic agent that delivers dsRNA to stimulate the immune system Can be dosed in combination with targeted agents, chemotherapy or checkpoint inhibitors
Favorable Safety, Positive Translational Data	Favorable safety profile Translational data (CelTIL scores, TIL counts) show immunotherapy MOA in the tumor/bloodstream
Poised to Begin Registrational Studies	Guidance on breast cancer registration plan expected in H1 2024 Pancreatic Cancer Adaptive registration-enabling study intended to begin in 2024
Strong Team, Collaborations, Cash	Experienced team, supported by collaborations with Pfizer, Roche, Merck and others, Fast Track Designations, and cash of $34.9 million[1], providing a runway into 2025

dsRNA: double-stranded RNA; TIL: tumor-infiltrating lymphocytes; MOA: mechanism of action; 1. as of the Q4 2023 filing

Pipeline Includes Two Registration Opportunities

	HR+ / HER2- Breast Cancer	First-line Advanced / Metastatic Pancreatic Cancer
Status	Positive data reported from two randomized phase 2 trials (IND-213 & BRACELET-1)	Phase 1/2 updated data reported October 2023
Key Data	Statistically significant near doubling of median overall survival observed in IND-213 (n=57) Robust improvement in PFS (HR=0.29) & 2.8-fold increase in confirmed ORR in BRACELET-1 (n=48*)	62% Objective response rate 7.2 months Median PFS 10.6 months interim Median OS 46% 12-month survival rate
Next Steps	Advancing to a licensure-enabling study	Advancing to a licensure-enabling study

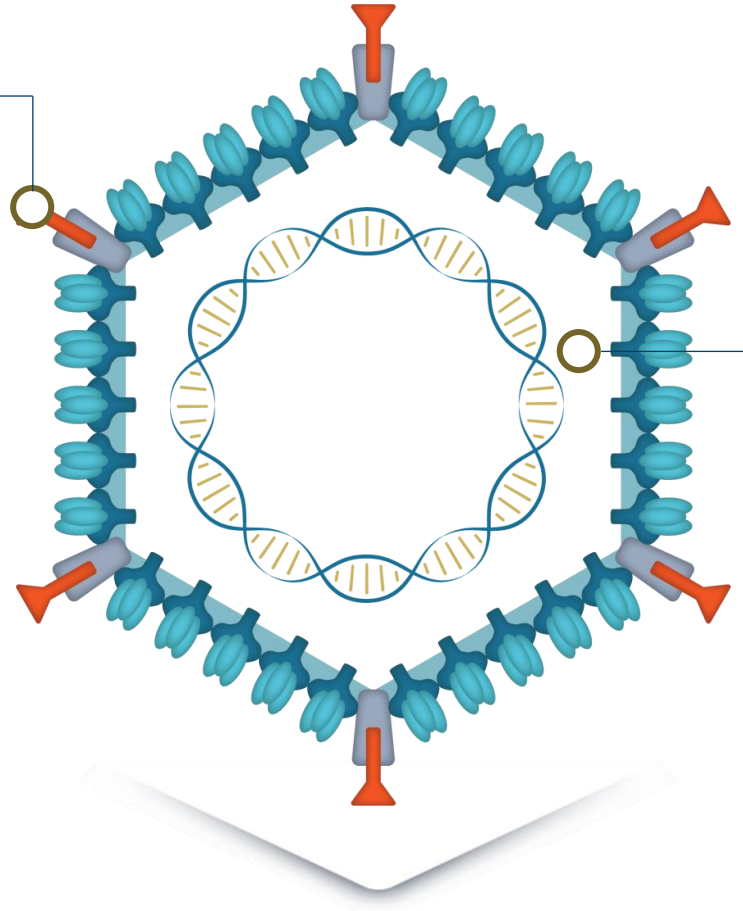
Both programs have U.S. FDA Fast Track Designation

*Trial included 48 patients across 3 cohorts with improvement in PFS and ORR seen between paclitaxel + pelareorep cohort (n=16) vs. paclitaxel monotherapy cohort (n=15). Third cohort evaluated paclitaxel + pelareorep + avelumab (n=17); PFS: Progression-free survival; ORR: Overall response rate; HR: Hazard Ratio; OS: Overall survival

Pelareorep is a 1st in Class, Immunotherapeutic Agent

An unmodified, non-pathogenic reovirus

Selectively replicates in cancerous cells



Enables the accumulation of double-stranded RNA (dsRNA) that stimulates the immune system

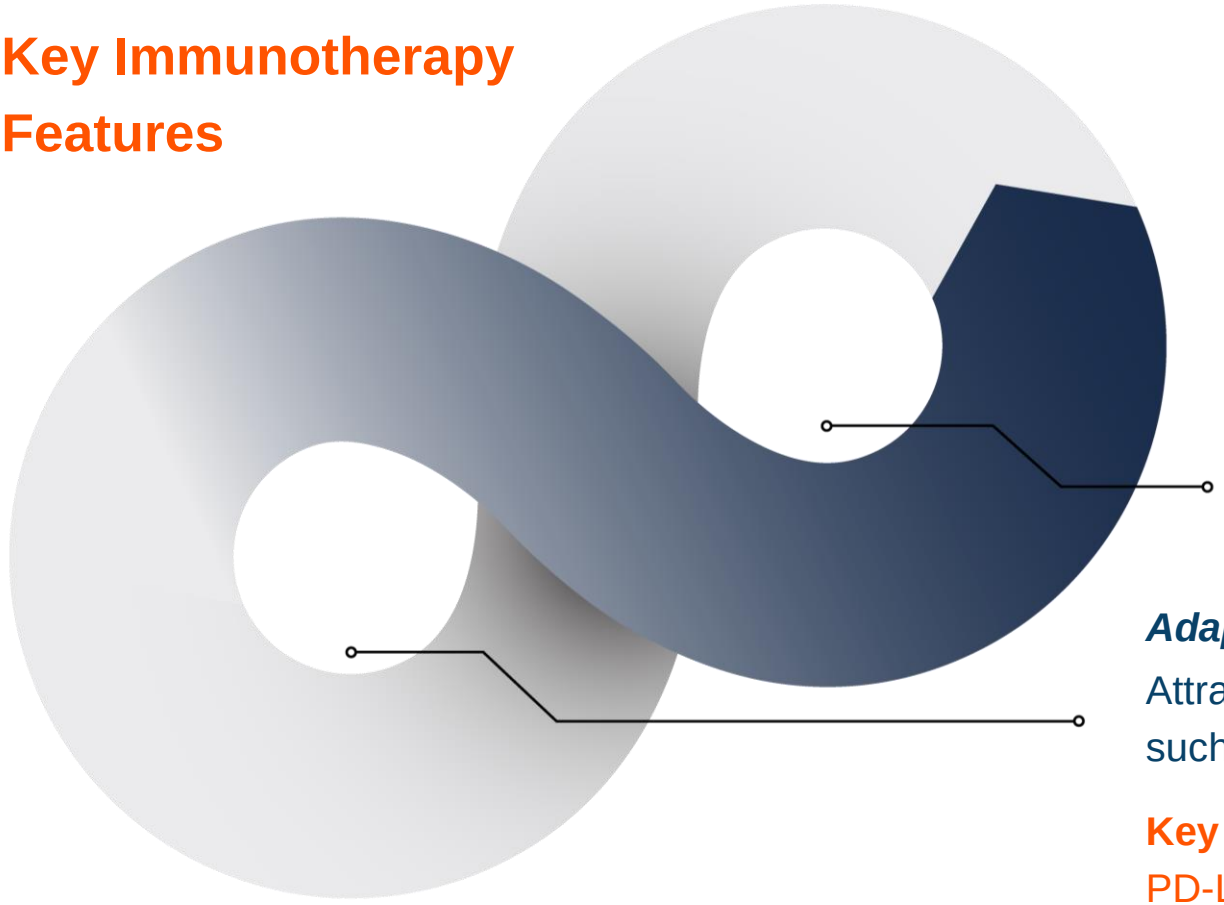
Leads to the activation of the Innate and Adaptive Immune System

Oncolytics illustration, 2024

Pelareorep is a Differentiated Immunotherapy

Key differentiators: Activation of the Innate and Adaptive Immune System, tumor microenvironment remodeling

Key Immunotherapy Features



Innate Immune System Activation

Promotes expression of interferons and inflammatory cytokines to promote recruitment and activation of immune cells such as dendritic cells to drive innate and adaptive immune response

Key Translational Metrics

Interferon levels, other immunologically relevant chemokines and cytokines

Adaptive Immune System Activation

Attract NK cells, leading to the engagement of key T cell populations such as TILs that drive tumor microenvironment remodeling

Key Translational Metrics

PD-L1 expression, detectable pathological changes including cell death and inflammation (TILs)

NK cells: Natural Killer Cells; TILs: Tumor Infiltrating Lymphocytes

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Pelareorep in HR+ / HER2- Breast Cancer

Breast Cancer Registrational Strategy Supported by Data from Two Randomized Trials and a Translational Study

Phase 2 Studies Highlight Benefit with Paclitaxel	Positive data from BRACELET-1 and IND-213 randomized trials showed meaningful improvements in response rates and survival for patients in the pelareorep/paclitaxel combination arms
Favorable Overall Safety	Manageable safety profile, consistent with prior reported results for paclitaxel, with ≤20% grade 3 (or greater) adverse events
Consistent Translational Data	Data from BRACELET-1 and AWARE-1 studies consistently show that pelareorep produces an expansion of T cell clones and/or increase in CelTIL scores and peripheral TIL counts
BRACELET-1 Survival Data Next Milestone	Multiple patients in the pelareorep/paclitaxel arm continue to be followed for survival Overall survival expected be reported in 2024
Registrational Trial Plan	Guidance on the registration path expected to be provided in H1 2024 Design expected to reflect positive PFS data from BRACELET-1's pelareorep/paclitaxel arm

PFS: progression-free survival; TIL: tumor-infiltrating lymphocytes

Advancing to Registrational Study in HR+/HER2- mBC

Monotherapy Study

Phase 1 — Demonstrated pelareorep's single agent activity in HR+/HER2- breast cancer ✓

Randomized Phase 2 study in mBC comparing pelareorep (pela) + paclitaxel (PTX) vs. PTX alone

IND-213 — Provided clinical POC by demonstrating a statistically significant improvement in overall survival ✓

Window-of-opportunity study in breast cancer examining pelareorep-mediated changes to the TME

AWARE-1 — Confirmed pelareorep's immunotherapeutic mechanism of action ✓

Randomized phase 2 study in HR+/HER2- mBC comparing PTX, pela + PTX, & pela + PTX + avelumab

BRACELET-1 — Confirmed positive data of IND-213: Robust improvement in ORR & PFS (HR=0.29) ✓

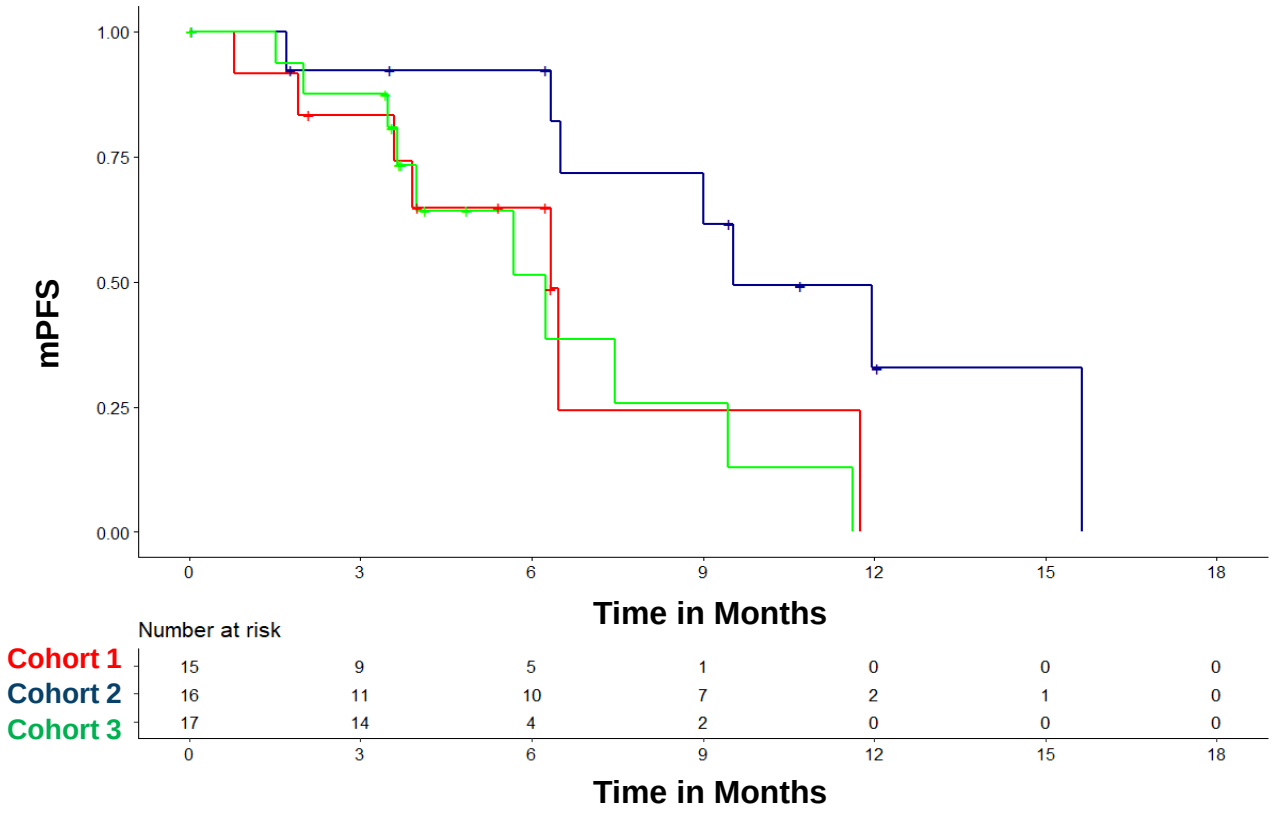
Registrational study in HR+/HER2- mBC

Reg. Study — Randomized trial of pelareorep-paclitaxel combination vs. paclitaxel monotherapy

mBC: Metastatic breast cancer; POC: Proof-of-concept; ORR: Overall Response Rate; PFS: Progression-Free Survival, HR: Hazard ratio

BRACELET-1 Study Showed Robust Improvement in mPFS for the Pelareorep + Paclitaxel Arm[1]

Median PFS Kaplan-Meier Curve[2]



	Paclitaxel (PTX) Monotherapy	PTX + Pelareorep	PTX + Pelareorep + Avelumab
Median PFS (months)	6.3 (95% CI: 3.9, NR)	**9.5** (95% CI: 6.5, NR)	6.2 (95% CI: 4.0, NR)
HR vs. PTX Mono-therapy	-	**0.29** (95% CI: 0.09, 0.98)	1.31 (95% CI: 0.47, 3.65)
12-Month PFS Rate (%)	0 (95% CI: -, -)	**32.8** (95% CI: 11.7, 92.4)	0 (95% CI: -, -)

[1]Data from a March 3, 2023 cut-off date. Numbers presented may change as they are derived from an unlocked database
[2]Data include all patients enrolled in trial. Response data presented by Clark et al. at ASCO 2023 included the 45 randomized patients and excluded participants in the three-patient safety run-in.
mPFS: median progression-free survival; PFS: Progression-free survival; CI: Confidence interval; NR: Not reached; HR: Hazard ratio

BRACELET-1 Data Show Benefits in Pelareorep + Paclitaxel Arm[1]

Response Measures/ Study arms[2]	PTX Monotherapy (n=15)	PTX + Pelareorep (n=16)	PTX + Pelareorep + Avelumab (n=17)[3]
Confirmed ORR Over Course of Trial	13.3%	**37.5%**	17.6%
mPFS (months)	6.3 (95% CI: 3.9, NR)	**9.5** (95% CI: 6.5, NR)	6.2 (95% CI: 4.0, NR)
PFS Hazard Ratio vs. PTX Monotherapy	-	**0.29** (95% CI: 0.09, 0.98)	1.31 (95% CI: 0.47, 3.65)
12-Month PFS Rate (%)	0 (95% CI: -, -)	**32.8%** (95% CI: 11.7, 92.4)	0 (95% CI: -, -)

ORR: Objective response rate; mPFS: median Progression-Free Survival; PFS: Progression-Free Survival; PTX: paclitaxel; OS: Overall Survival; mOS: median Overall Survival;
[1]Data from a March 3, 2023 cut-off date. Numbers presented may change as they are derived from an unlocked database.
[2]Response based on RECIST V1.1 investigator assessment.
[3]Data include all patients enrolled in trial. Response data presented by Clark et al. at ASCO 2023 included the 45 randomized patients and excluded participants in the three-patient safety run-in in cohort
CI: Confidence interval; NR: Not reached.

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

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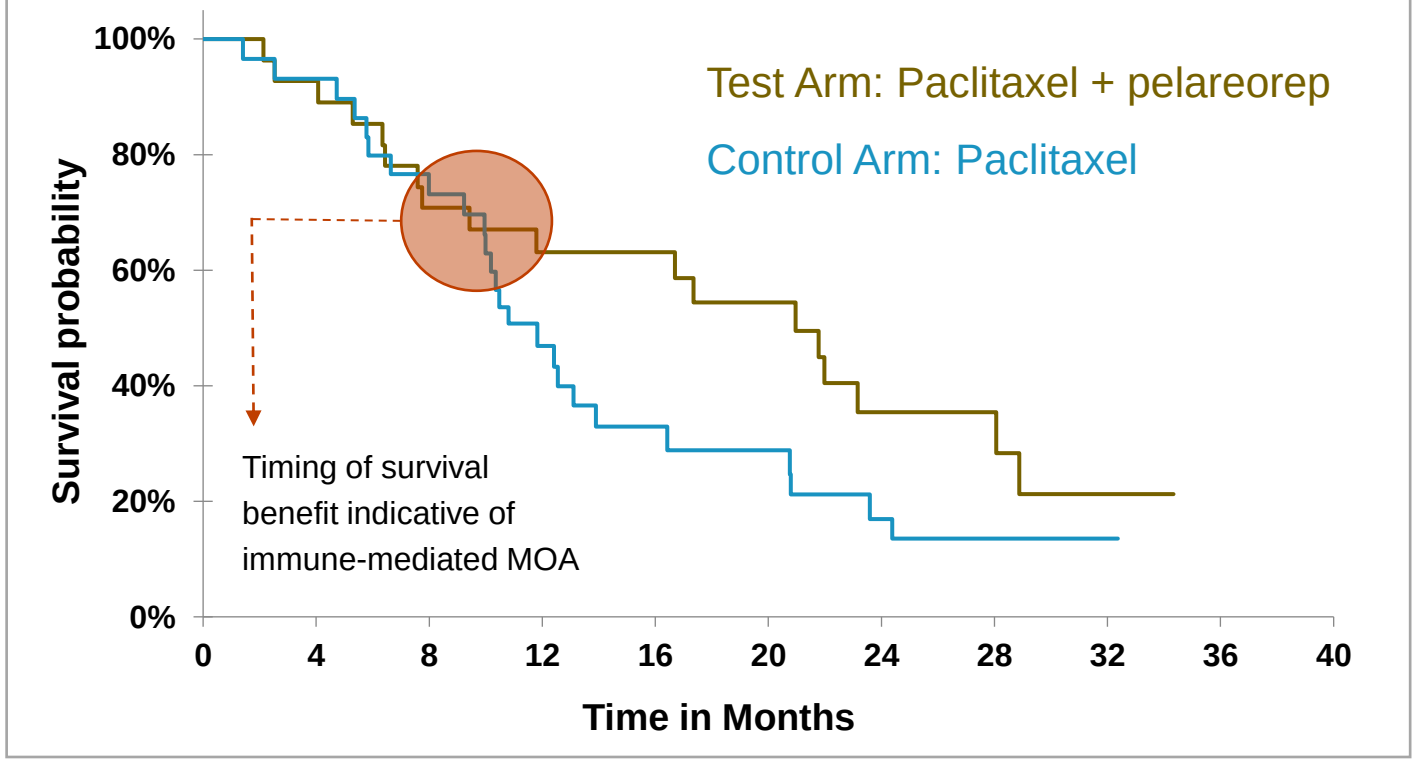
Phase 2 All Subtypes (n = 74)

HR	0.65
p	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
p	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)



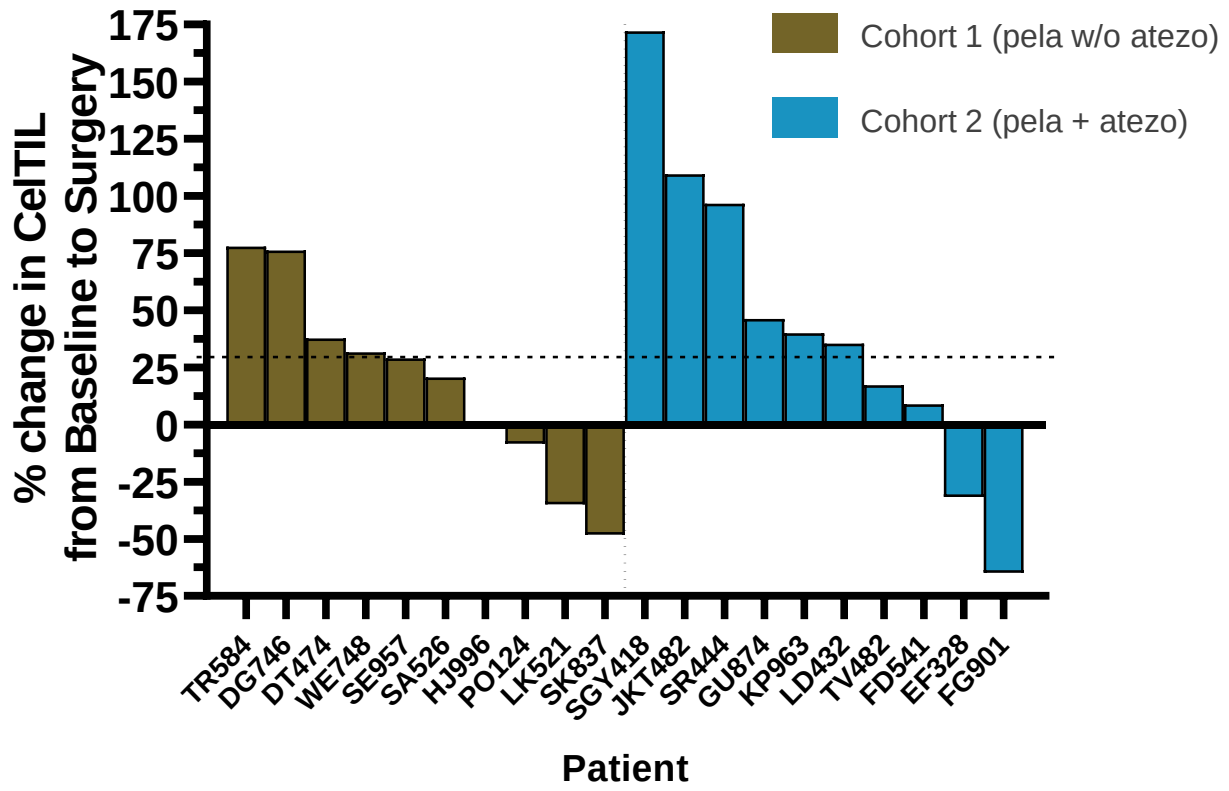
Near doubling of mOS in HR+/HER2- patients with pelareorep treatment

mOS: Median Overall Survival; HR: hazard ratio

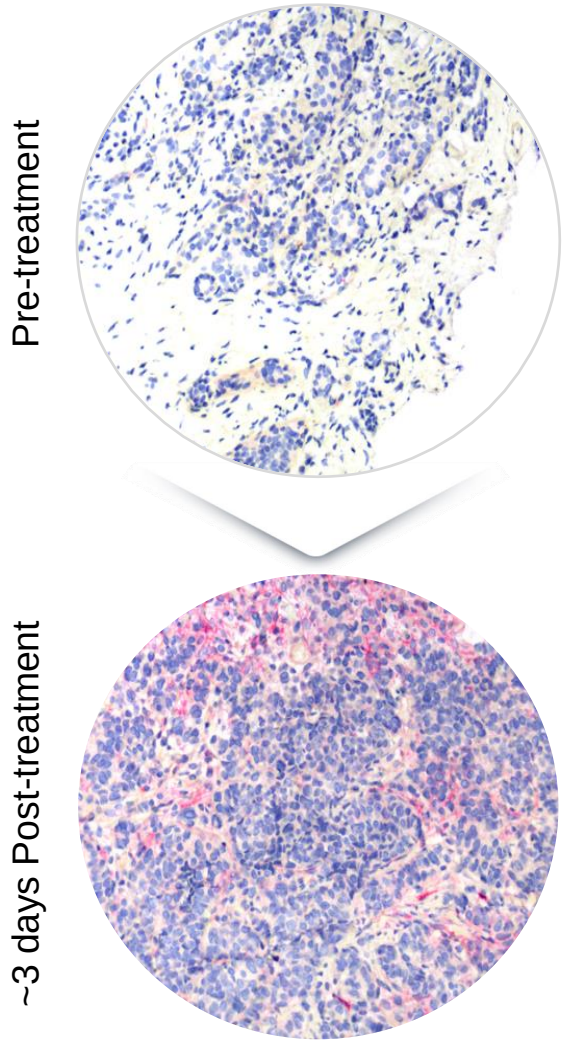
AWARE-1 Translational Data Shows Consistent Impact on CelTIL Score, PD-L1 Expression

CelTIL (cell death & inflammation) Expansion:

Improvements associated with better treatment outcomes[1]



Tumor PD-L1 expression



Red stain = PD-L1+ cells

Pela: Pelareorep; Atezo: Atezolizumab

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

Breast Cancer Registrational Trial Update Planned for H1 2024

Patient Population HR+/HER2- mBC**:**

- Prior Treatments: hormonal therapy including CDK4/6 inhibitors, and patients who failed or were ineligible for ADC therapy
- Design to be based on positive BRACELET-1 Phase 2 results

Treatment Regimen:

- Randomized trial of pelareorep + paclitaxel combination vs. paclitaxel monotherapy

Registrational Endpoints:

- **Primary and Key Secondary:** To potentially include Progression-Free Survival and Overall Survival
- **Other Endpoints:** Overall Response Rate and Translational Assessments

Update to include definition of study size, endpoints and estimated start timing

mBC: metastatic breast cancer; ADC: antibody drug conjugate

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Pelareorep in First-Line Advanced / Metastatic Pancreatic Cancer

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

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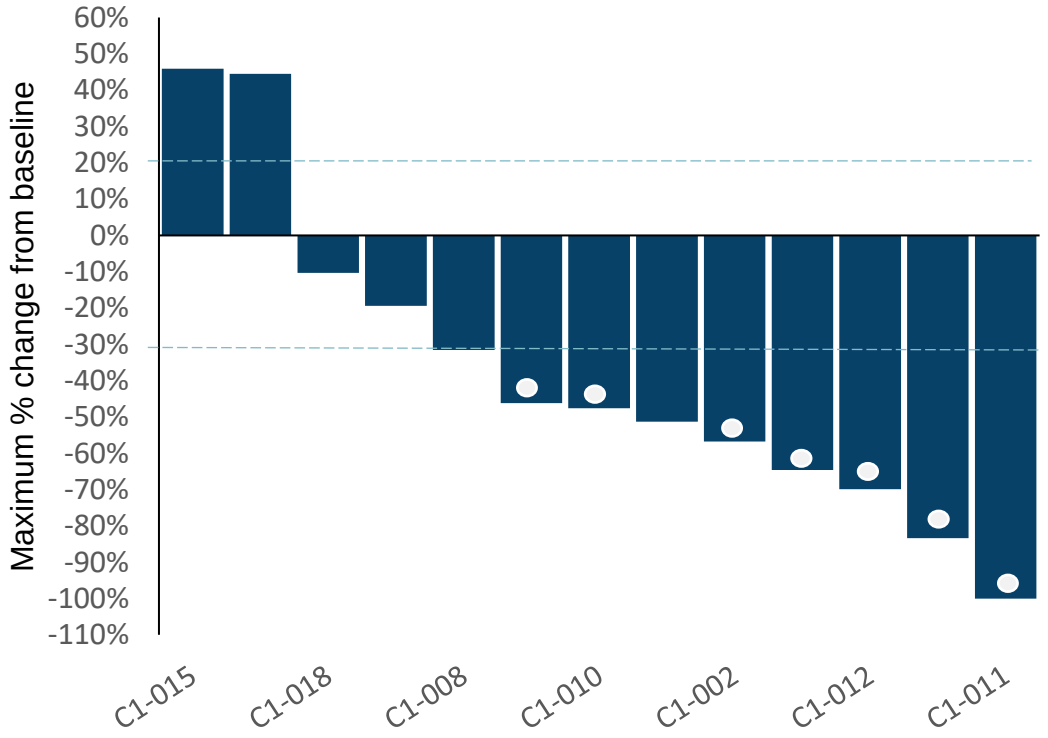
Studies Show Survival Benefit	Positive Data from pancreatic cancer patients in the GOBLET and REO-017 open-label trials showed meaningful improvements in survival
GOBLET Study Shows Increased ORR	An ORR of 62% was observed, representing a near tripling from historical controls; 7.2 mo mPFS, 10.6 mo interim mOS are ≥25% compared to historical control trials[1-4]
Generally Favorable Overall Safety	GOBLET data indicate the treatment has been well tolerated with no safety concerns
Consistent Translational Data	Translational data from GOBLET show that patients with increases in blood TILs showed a decrease in tumor volumes
Registrational Trial Plan and Beyond	Plans to define a registration-enabled adaptive-design protocol in H1 2024, initiate the study in 2024; $5M PanCAN grant to explore pelareorep/mFOLFIRINOX regimen, expecting H1 2024 start

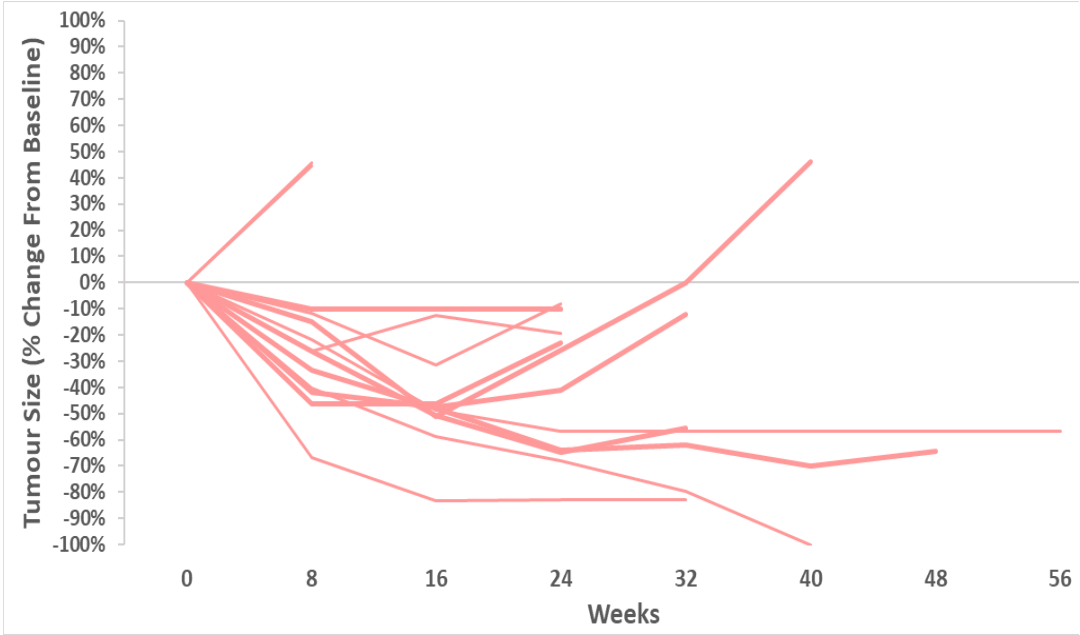
ORR: overall response rate; mo: month; mPFS: median progression-free survival; mOS: median overall survival; TILs: tumor-infiltrating lymphocytes; mFOLFIRINOX: modified FOLFIRINOX; PanCAN: Pancreatic Cancer Action Network; Sources: 1. Von Hoff D et al. N Engl J Med 2013; 369:1691-1703 DOI: 10.1056/NEJMoa1304369; 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.

PDAC GOBLET Results Showing 62% ORR

Tumor Responses as of Sep. 18, 2023 cut off; All Patients/n=13



Tumor Responses Over Time; Evaluable Patients/n=11

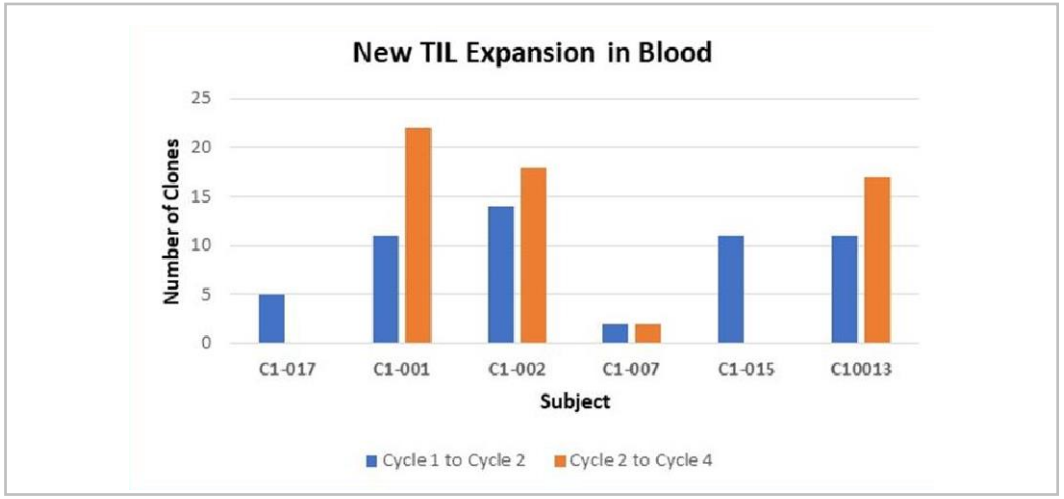


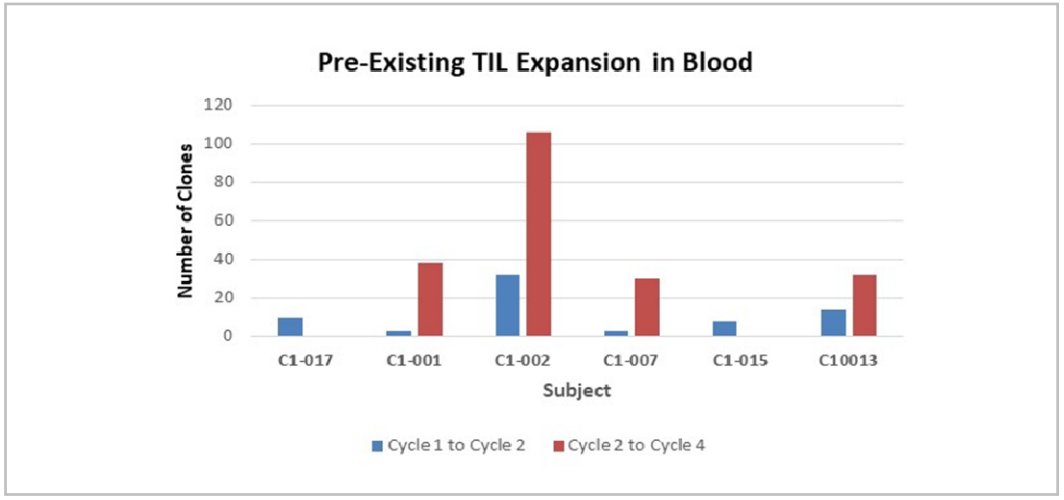
Dotted lines represent cut-offs for PD (+20%) and PR (-30%)

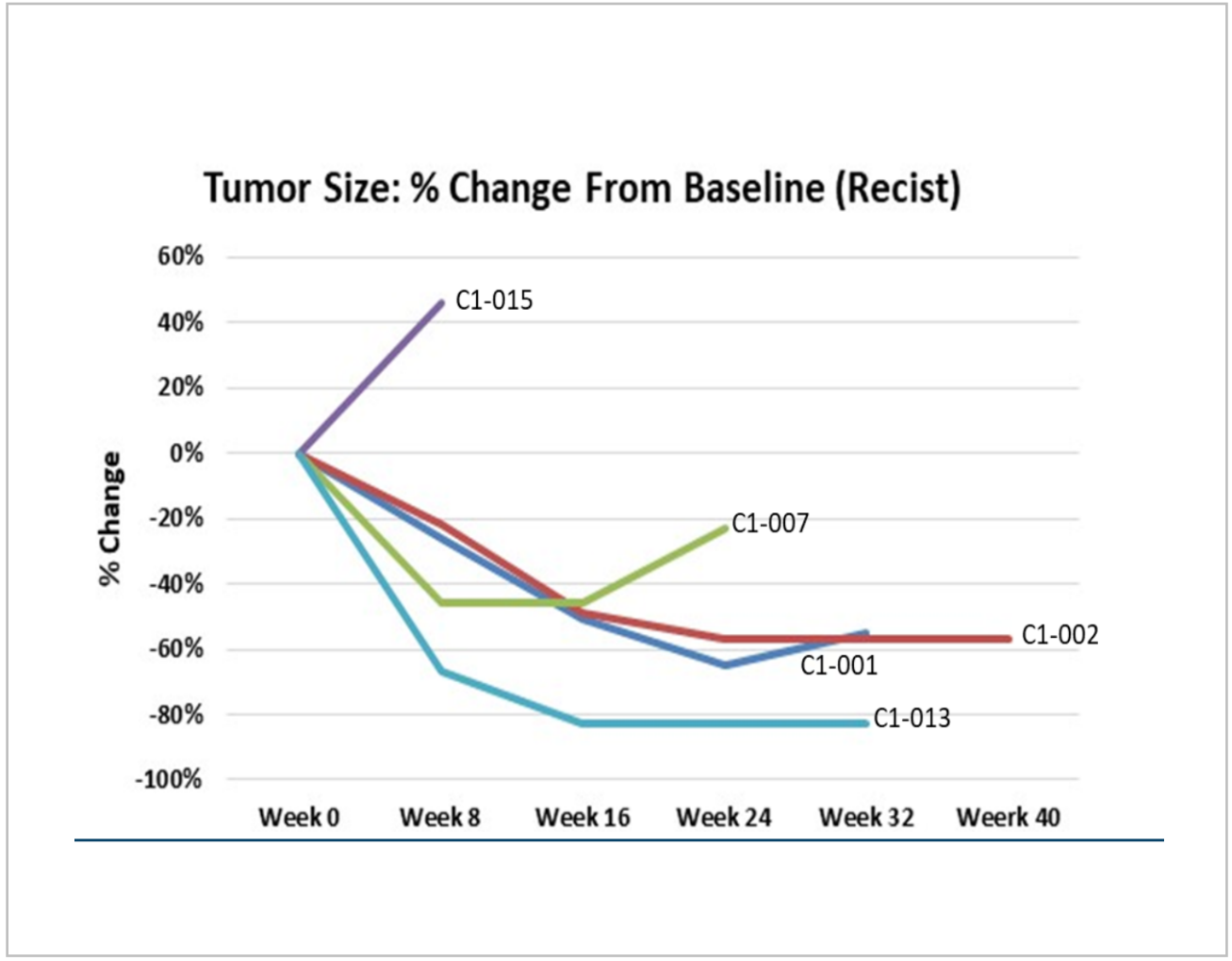
Patients with a white dot have confirmed responses (2 or more consecutive scans with PR or CR)

ORR: Objective Response Rate; PD: Progressive Disease; PR: Partial Response; CR: Complete Response; Graph Source: ESMO 2023 poster

Expansion of New/Pre-Existing T cell Clones Correlate with Tumor Shrinkage Provides a Valuable Potential Biomarker







Source: ESMO 2023 poster

Next Steps: mFOLFIRINOX Study to Further Explore Combinations with the Most Common PDAC Treatment Regimens

Strategic rationale: to investigate the use of pelareorep with the most commonly used treatment regimens

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)

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

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

Study expected to begin in H1 2024

PDAC: pancreatic ductal adenocarcinoma; PanCAN: Pancreatic Cancer Action Network; mFOLFIRINOX: modified FOLFIRINOX

Next Steps: Define PDAC Registrational Trial Plan 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 and Secondary:** To include Overall Survival, Progression-Free Survival, and Overall Response Rate
- **Additional Secondary:** To include Translational Data

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

1L: First-Line; PDAC: pancreatic ductal adenocarcinoma

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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

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

Patient Population:

- Phase 2 Simon Two-Stage Cohort
- Patients with 2L, unresectable squamous cell carcinoma of the anal canal (SCCA)
- Prior Treatments: chemotherapy (100%) and radiation therapy (88%)

Treatment Regimen:

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

Registrational Endpoints:

- **Simon Two-stage criteria to progress:** 2 or more responses out of the first 10 enrolled
- **Additional Secondary:** To include translational data

Enrollment Expansion:

- Estimated ≤20 additional patients will be sufficient to confirm the efficacy signal and move to a registrational study

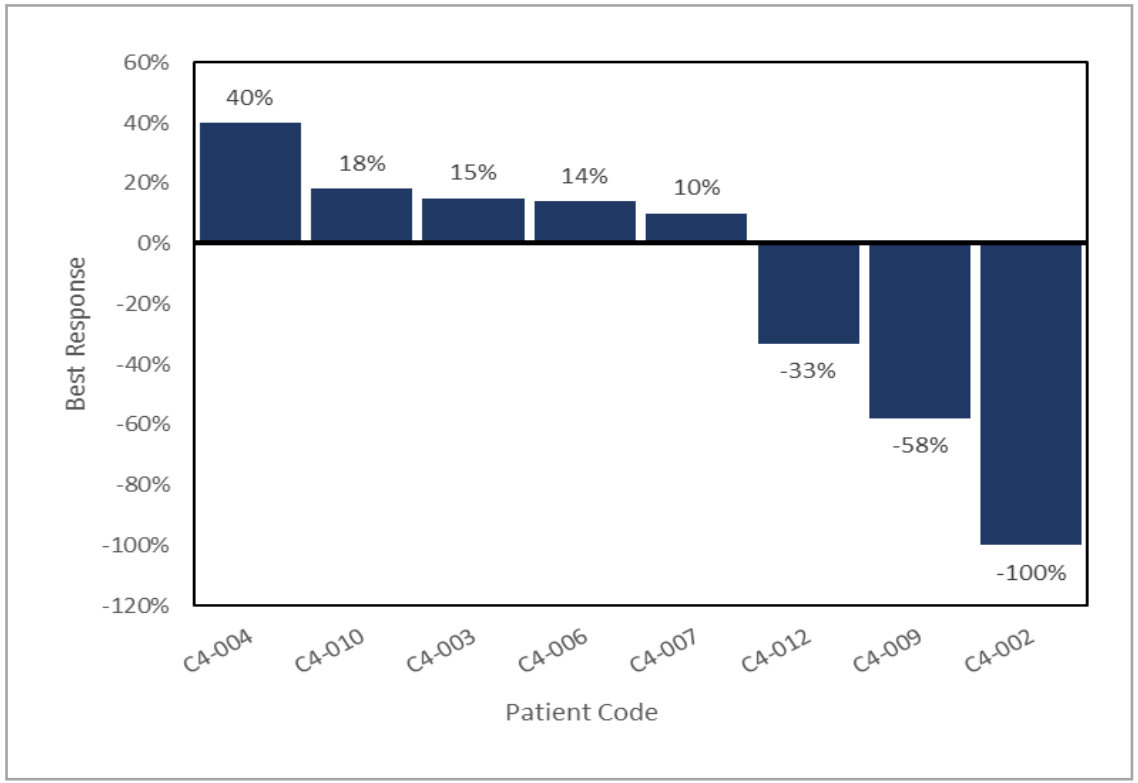
ORR of 37.5%, with 1 CR ongoing at 12 months and 2 PRs
Data satisfied the pre-specified success criteria for the study
Follow-up is ongoing

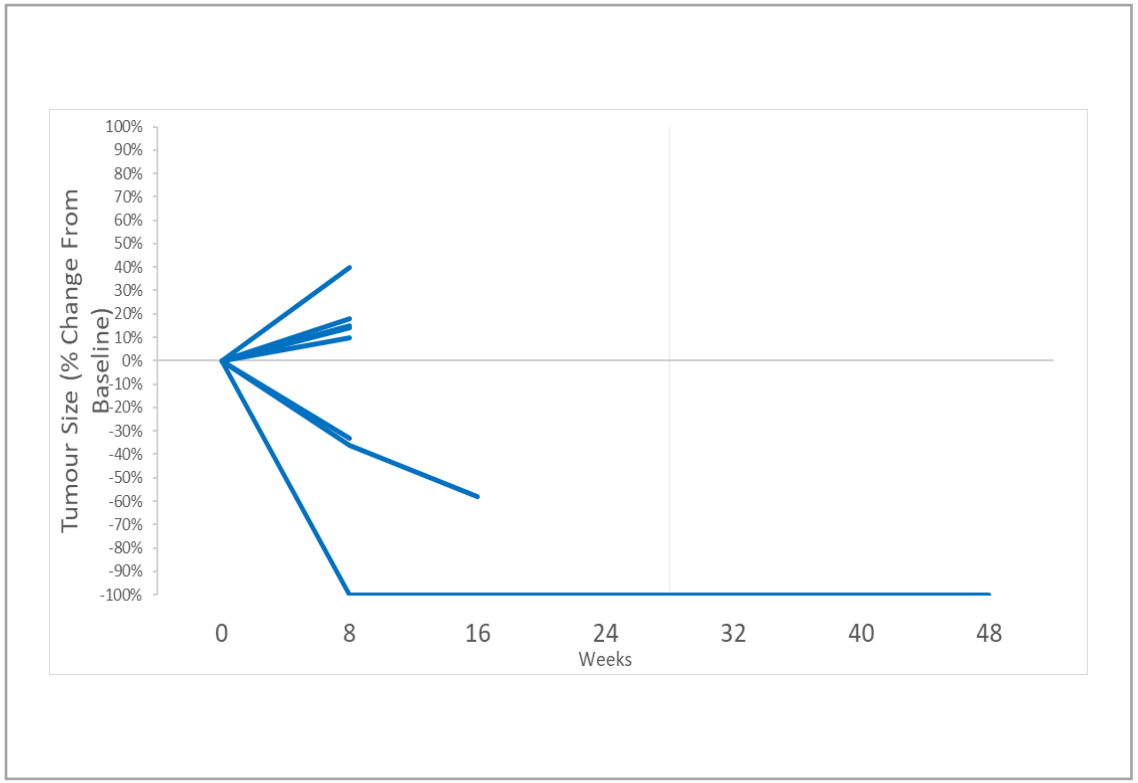
CPI: Checkpoint Inhibitor; 2L: Second-Line; ORR: objective response rate; CR: complete response; PR: partial response

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 therapies[1-7]





ORR: objective response rate; CR: Complete Response; PR: Partial Response; Sources: 1. Ott et al Annal Oncology (2017)/NCT02054806; 2. Morris et al, The Lancet (2017)/NCT02314169; 3. Lao et al Annal Oncology (2020)/NCT03597295; 4. Marabelle et al Lancet Oncology (2022)/NCT02628067; 5. Sara Lonardi (2021) J. Immu Cancer/NCT03944252; 6. Kim et al, BMC Cancer.2020 Apr 25;20(1):352.; 7. Sheela Rao (Frontier Oncol) 2022

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 expected in 2024
HR+/HER2- mBC	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	pela + gem + nab-PTX + atezo				Study initiation 2024
GOBLET cohort 5 Newly Diagnosed PDAC	Roche	pela + mFOL +/- atezo				Study initiation H1 2024
GOBLET cohort 4 ≥2L Unresectable Anal Cancer	Roche	pela + atezo				Enrollment Expansion H1 2024

mBC: Metastatic Breast Cancer; PDAC: pancreatic ductal adenocarcinoma; pela: pelareorep; PTX: paclitaxel; gem: gemcitabine; atezo: atezolizumab; mFOL: modified FOLFIRINOX; OS: Overall Survival; Adv: Advanced; 1L: First-Line; 2L: Second-Line

Key Value-Driving Clinical Milestones Ahead in 2024+

H1 2024

Breast Cancer

Provide guidance on the registration path

Pancreatic Cancer

Initiation of Phase 1/2 PanCAN/mFOLFIRINOX GOBLET cohort 5

Mid 2024

Pancreatic Cancer

Initiate Adaptive registration-enabling study

2024

Pancreatic Cancer

Expanded data from the GOBLET study cohorts 1 & 5

Breast Cancer

BRACELET-1 Phase 2 Overall survival data

2025 - 2026

Pancreatic Cancer

Interim analysis from the Adaptive registration-enabling study

Anal Cancer

Expanded follow-up data from GOBLET cohort 4

PanCAN: Pancreatic Cancer Action Network; mFOLFIRINOX: modified FOLFIRINOX

Cash Balance Supports Planned Operations Through Key Milestones

Financial Overview	
Ticker	ONCY: NASDAQ ONC: TSX
Avg. Daily Volume (1 mo*)	519,553
Shares Outstanding	75,419,768
Market cap[1]	~$79 M
Cash[2]	$34.9 M
HQ	San Diego, CA / Calgary, AB, Canada

Research Coverage	
Patrick Trucchio	H.C. Wainwright & Co.
John Newman	Canaccord Genuity
Jason McCarthy	Maxim Group
Douglas Miehm	RBC Capital Markets
Louise Chen	Cantor Fitzgerald
Douglas Loe	Leede Jones Gable
Soumit Roy	JonesTrading
Rahul Sarugaser	Raymond James

*Trading days from Feb. 12, 2024 – Mar. 8, 2024; 1. Market Cap as of March 8, 2024;
2. Cash as of December 31, 2023

Innovative Leadership Team with Strong Immuno-oncology, 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

Amy Levin, RN, BSN
VP, Clinical Operations

Investment Opportunity Driven by Robust Pelareorep Results

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Favorable Safety, Positive Translational Data	Favorable safety profile Translational data (CelTIL scores, TIL counts) show immunotherapy MOA in the tumor/bloodstream
Poised to Begin Registrational Studies	Guidance on breast cancer registration plan expected in H1 2024 Pancreatic Cancer Adaptive registration-enabling study intended to begin in 2024
Strong Team, Collaborations, Cash	Experienced team, supported by collaborations with Pfizer, Roche, Merck and others, Fast Track Designations, and cash of $34.9 million[1], providing a runway into 2025

dsRNA: double-stranded RNA; TIL: tumor-infiltrating lymphocytes; MOA: mechanism of action; 1. as of the Q4 2023 filing

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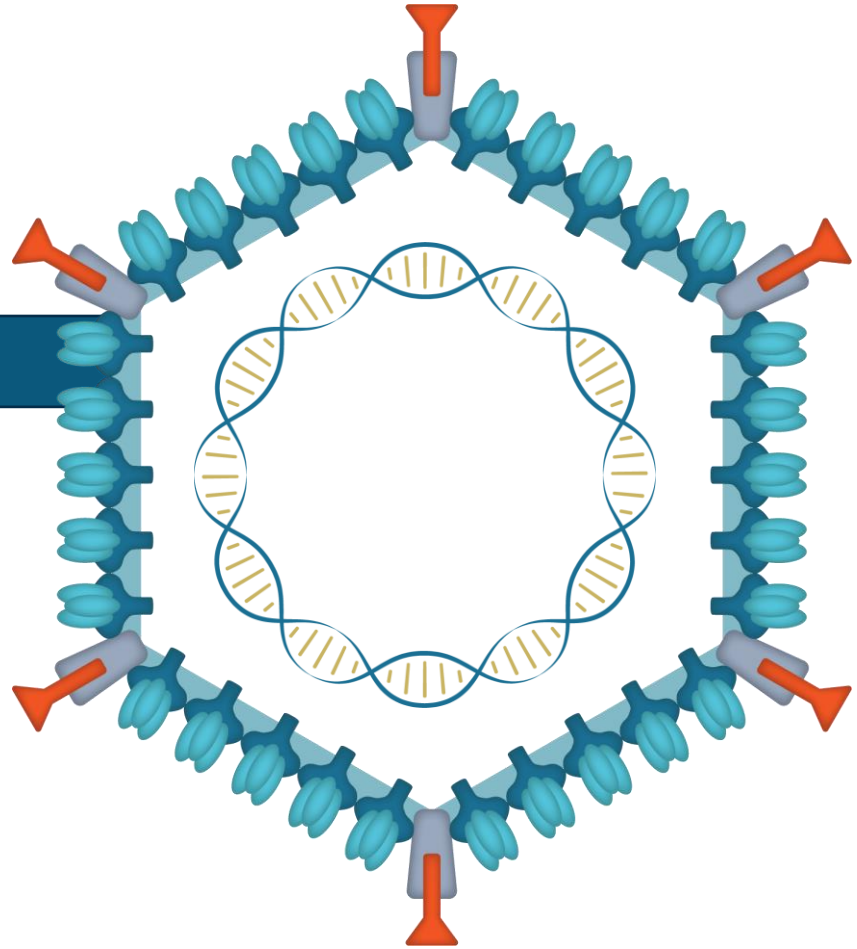
Appendix

Robust Intellectual Property Portfolio

150 patents issued worldwide, including **15 US** and **7 Canadian**

16 pending applications worldwide



Reovirus issued patent claims cover:

Compositions of matter comprising reovirus

Patent rights extend to at least the end of 2031

Pharmaceutical use of reoviruses to treat neoplasia and cellular proliferative diseases

Combination therapy with radiation, chemotherapy and/or immunosuppressants

Methods for manufacturing reovirus and screening for susceptibility to reovirus

Eligible for 12 years of U.S. market exclusivity upon approval

Updated as of Dec. 31, 2023

GOBLET Study Design

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

Advanced / Metastatic Pancreatic Cancer 1L n=12	Pelareorep + Atezolizumab + Gemcitabine + Nab-paclitaxel Success Criteria ≥ 3 responses	
Metastatic Colorectal Cancer 1L* n=19	Pelareorep + Atezolizumab Success Criteria ≥ 9 responses	**Primary Endpoints:** Safety ORR at week 16 **Secondary Endpoints:** PFS, OS **Exploratory Endpoints:** T cell clonality CEACAM6 expression
Metastatic Colorectal Cancer 3L n=14	Pelareorep + Atezolizumab + TAS-102 Success Criteria ≥ 4 responses	
Unresectable Anal Cancer ≥2L n=10	Pelareorep + Atezolizumab Success Criteria ≥ 2 responses	
Newly diagnosed Pancreatic Cancer 1L n=15	Pelareorep + mFOLFIRINOX +/- Atezolizumab Success Criteria ≥ 6 responses	

L: Line; *1L MSI-high focused; mFOLFIRINOX: modified FOLFIRINOX; ORR: Objective response rate; Atezolizumab (Tecentriq®); PFS: Progression-free survival; OS: Overall survival

REO 017: Pelareorep + Chemotherapy in PDAC Generated Median Overall and Landmark Survival Rates That Compare Favorably to 3rd – Party Historical Data

Design: Single-arm; 34 patients enrolled, 29 evaluable for response

Population: Metastatic or advanced PDAC; No previous chemotherapy (1L)

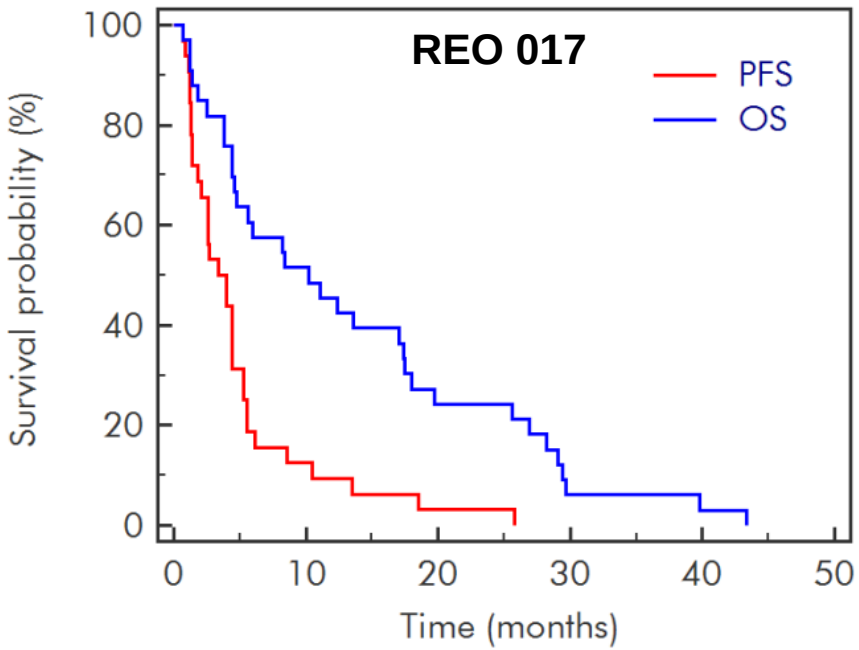
Treatment: Gemcitabine (Days 1, 8) + pelareorep (Days 1, 2 & Days 8, 9)

Primary Endpoint: Clinical benefit rate (CBR) at ≥12 weeks

Secondary Endpoints: PFS, OS, safety

Endpoint	REO 017	Benchmark data[1]
Median PFS	**3.4 months**	3.4 months
Median OS	**10.2 months**	6.8 months (range 4.9-8.8 mo)
1-year survival rate	**45%**	23.4% (range 16-35%)
2-year survival rate	**24%**	6.1% (range 4-9.4%)

1. Von Hoff D et al. N Engl J Med 2013; 369:1691-1703 DOI: 10.1056/NEJMoa1304369; Conroy et al. N Engl J Med 2011; 364:1817-1825. DOI: 10.1056/NEJMoa1011923; Poplin, et al., J Clin Oncol 2009. 27:3778; Ueno, et al., J Clin Oncol 2013. 31 :1640



Key Takeaways*:

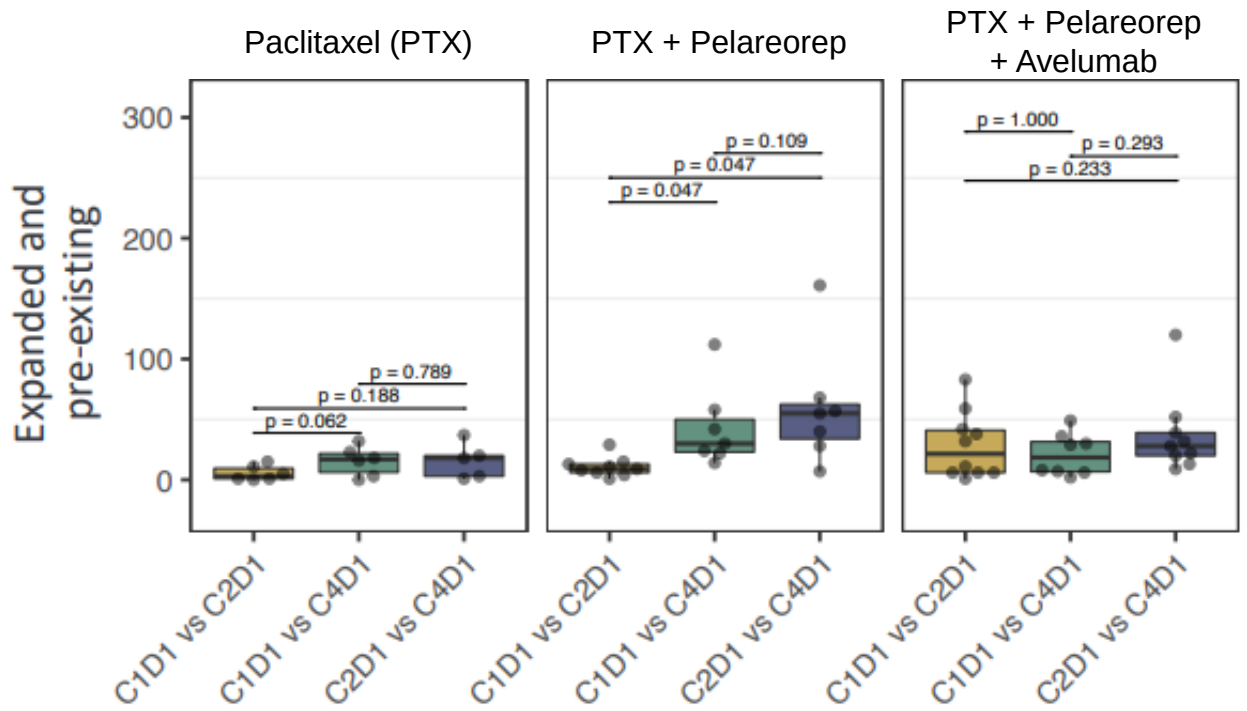
Pelareorep + gemcitabine resulted in higher median OS, 12-month survival rates and 24-month survival rates than historical results for gemcitabine alone

Mahalingam. et al. Cancers. 2018; PDAC: pancreatic ductal adenocarcinoma; PFS: progression-free survival; OS: overall survival

*Historical results are based on previously published results from randomized, controlled clinical trials in which patients with advanced or metastatic PDAC patients received gemcitabine monotherapy

BRACELET-1 Translational Data Align with ORR and PFS Endpoints

Statistically Significant Expansion of T Cell Clones with Pelareorep-Paclitaxel Combination



Key Translational Findings

- Statistically significant expansion of T cell clones seen by Cycle 4 Day 1 with pelareorep + paclitaxel
- No significant expansion of T cell clones with pelareorep + paclitaxel + avelumab
- T cell expansion associated with measures of efficacy in BRACELET-1
- Data are consistent with pelareorep's mechanism of action

ORR: Overall response rate; PFS: Progression-free survival

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

Fifteen Most Common Adverse Events[1,2] as Attributed to Study Drug(s)

	Paclitaxel (PTX) (n=12)		PTX + Pelareorep (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%)	-

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