Eganelisib
Addressing Significant Patient Need With Next-Generation Immunotherapies

May 2022

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Cautionary Note Regarding Forward-Looking Statements

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Infinity Pharmaceuticals

Headquarters: 1100 Massachusetts Avenue, Harvard Square, Cambridge, Massachusetts

Nasdaq: INFI

Focus: First-in-class/best-in-class oncology therapeutics

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Eganelisib: Potential Best-In-Class Next-Generation Immunotherapy

First-in-class, oral, potent and selective macrophage reprogramming therapeutic

- Strong preclinical/translational medicine data demonstrating reprogramming of tumor associated macrophages
- Uniquely differentiated, next-generation immunotherapy

Clinical activity, safety & translational data in P2 settings where CPIs have shown little or no patient benefit

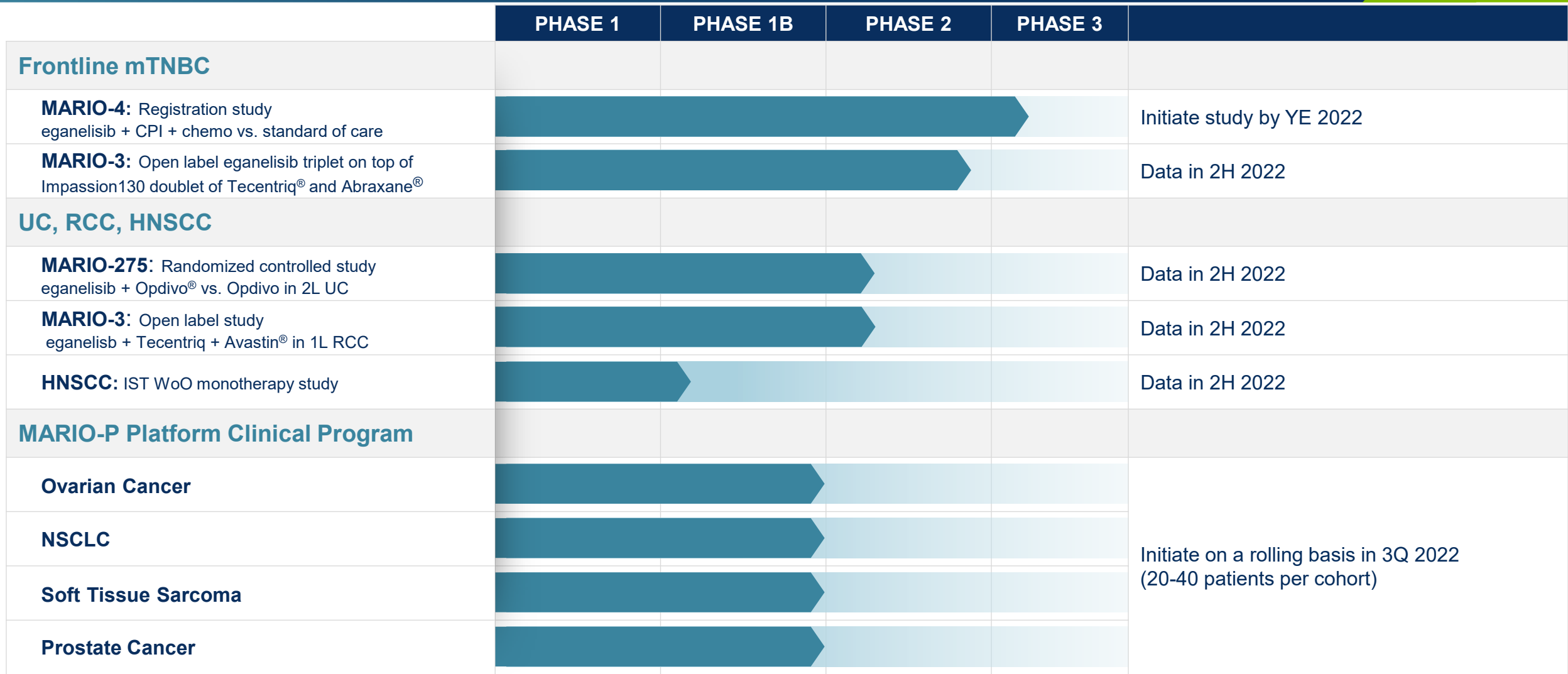
- 1L advanced/metastatic Triple Negative Breast Cancer (TNBC) in combination with CPI + chemo
- 2L metastatic Urothelial Cancer in combination with CPI
- Clinical/Translational Data releases in 4 tumor types in 2022

Registration enabling study in frontline advanced/metastatic TNBC - to be initiated by end of 2022

Platform clinical program to rapidly and efficiently evaluate eganelisib in indications where tumor associated macrophages limit effectiveness of current therapies - to be initiated in 3Q2022

Advancing and Expanding MARIO Clinical Development Program
MAcrophage Reprogramming in Immuno-Oncology

MARIO
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY



Triple Negative Breast Cancer (TNBC)
Urothelial Cancer (UC)
Renal Cell Carcinoma (RCC)
Head and Neck Squamous Cell Cancer (HNSCC)
Non Small Cell Lung Cancer (NSCLC)

Tecentriq® is a registered trademark of Genentech, Inc.
Abraxane® is a registered trademark of Abraxis BioScience, LLC.
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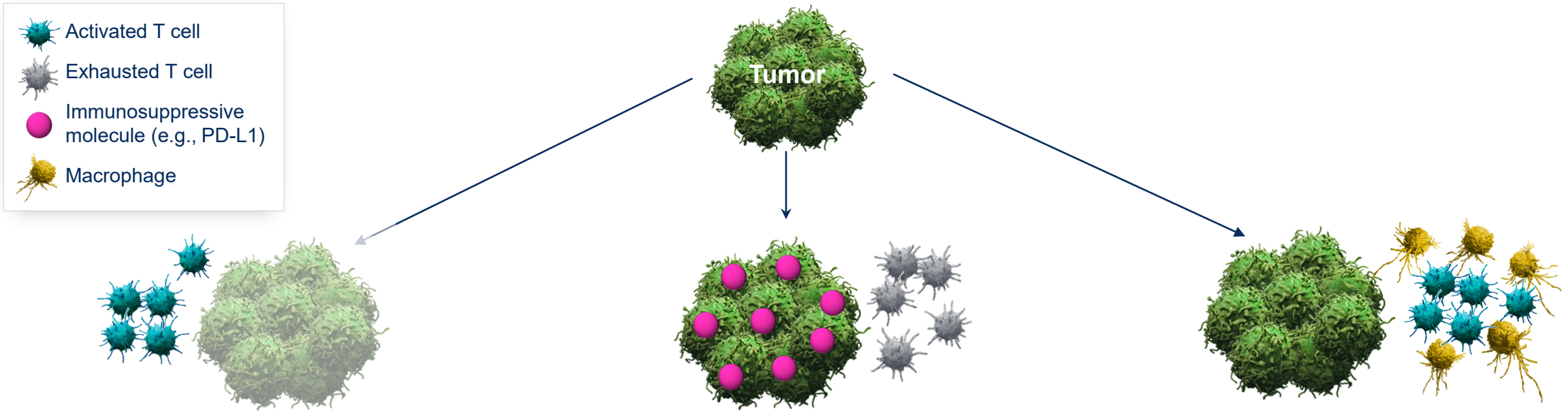
How Tumors Evade the Immune System

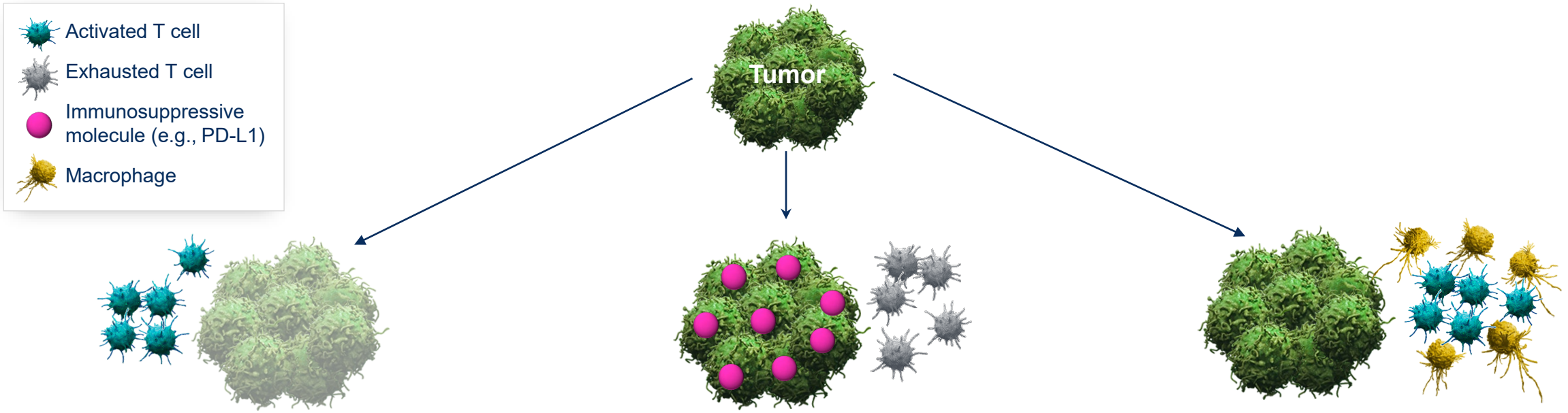


Tumor Invisible to Immune Attack

Tumor Visible but T cells Exhausted

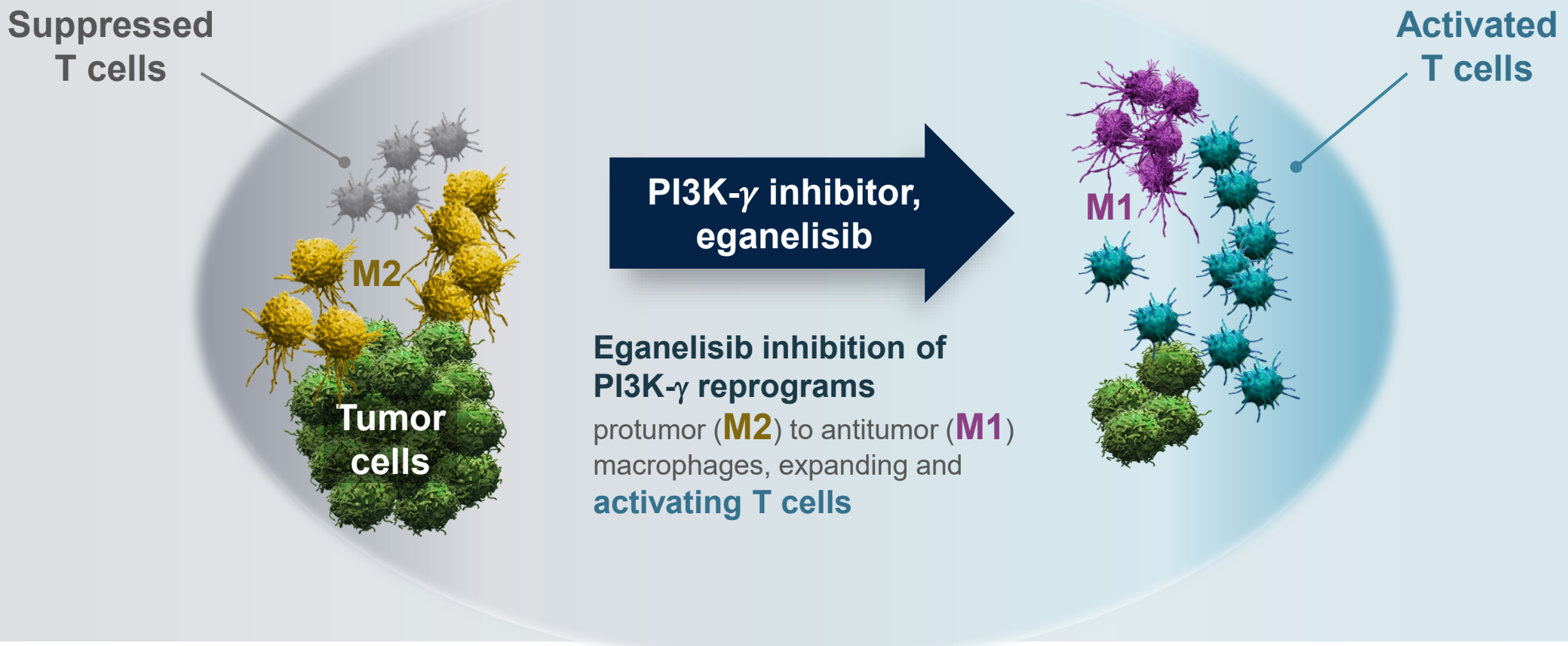
Tumor Visible but Microenvironment (TME) Suppresses T cell Response

Eganelisib: Next-Generation Immunotherapy Targeting Tumor Associated Macrophages to Overcome Cancer Immune Evasion



Tumor Invisible to Immune Attack	Tumor Visible but T cells Exhausted	Tumor Visible but Microenvironment (TME) Suppresses T cell Response
Treatment Approaches • Radiotherapy • Chemotherapy	**Treatment Approaches (CPIs)** • PD-1/PD-L1 • CTLA-4 • LAG-3 • TIGIT	**Treatment Approaches** • **Reprogram Tumor Associated Macrophages (TAMs) with PI3Kγ (Eganelisib)** • Target tumor vasculature • Target regulatory T cells (Tregs)

Eganelisib Reprograms Macrophages to Turn Tumor Microenvironment from Immune Suppressed to Immune Activated



Eganelisib inhibition of PI3K-γ reprograms protumor (**M2**) to antitumor (**M1**) macrophages, expanding and **activating T cells**

MARIO Clinical Program Demonstrates Eganelisib Clinical Activity and Safety Across Multiple Combinations and Tumor Types

MARIO
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

	PHASE 1	PHASE 1B	PHASE 2	KEY STUDY DATA
MARIO-275	Bristol Myers Squibb™			
2nd Line Urothelial Cancer in combination with Opdivo				ITT mOS of 15.4 mos vs 7.9 mos on Control Arm with HR of 0.62[1]
MARIO-3	Roche Genentech, A Member of the Roche Group			
Frontline Metastatic TNBC in combination with Tecentriq and Abraxane				PD-L1(+) Pts 47% Extension of mPFS[2] PD-L1(–) Pts 30% Extension of mPFS[2]
ARC-2	ARCUS BIOSCIENCES			
TNBC and Ovarian Cancer in combination with etrumadenant and Doxil®				TNBC ORR: 25% vs. 9%[3] Ovarian ORR: 75% vs. 14%[3]
MARIO-1	Bristol Myers Squibb™			
Checkpoint inhibitor refractory HNSCC and Melanoma in combination with Opdivo				SCCHN ORR (≤ 2 lines): 20%[4] Melanoma ORR (≤ 2 lines): 21%[5]

1. Tomczak et al. ASCO GU 2021; 2. Soliman et all, SABCS 2021 Compared to IMpassion 130 data presented by Emens, LA, 2018 SABCS, abstract GS1-04; 3. Gardner O et al. SABCS 2020 Triplet Arm (Eganelisib + Etrumadenant + Doxil) versus Doublet Arm (Etrumadenant + Doxil); Doxil® is a registered trademark of Baxter Healthcare Corporation.
4. Cohen et al. SITC 2020; 5. Postow et al. SITC 2020

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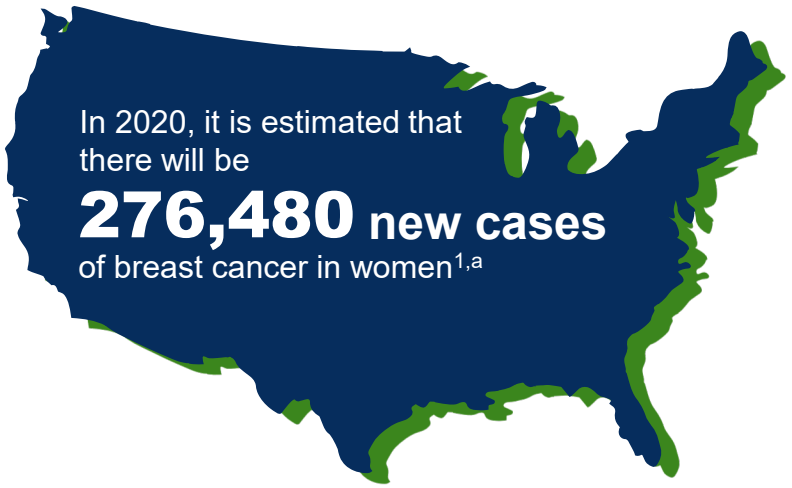
Metastatic TNBC is Associated with Poor Prognosis

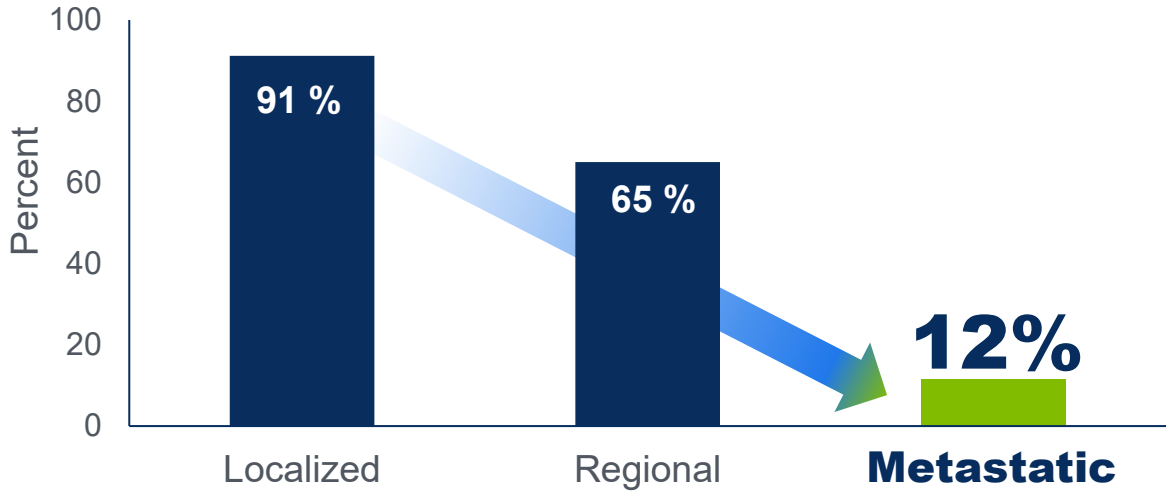
Advanced TNBC and PD-L1(-) TNBC Are Both Associated With Poor Prognosis



15% of breast cancer is **triple negative[2]**

(ie, negative for ER, PR, and HER2)

5-year survival rate by stage at diagnosis of TNBC[3,†]



PD-L1(-) cancers are associated with poor prognosis[4]
≈ 60% of TNBCs are PD-L1(-)[5,‡]

Forecast of 16K addressable 1L mTNBC patients globally in 2034 suggests market potential of over $2B[6]

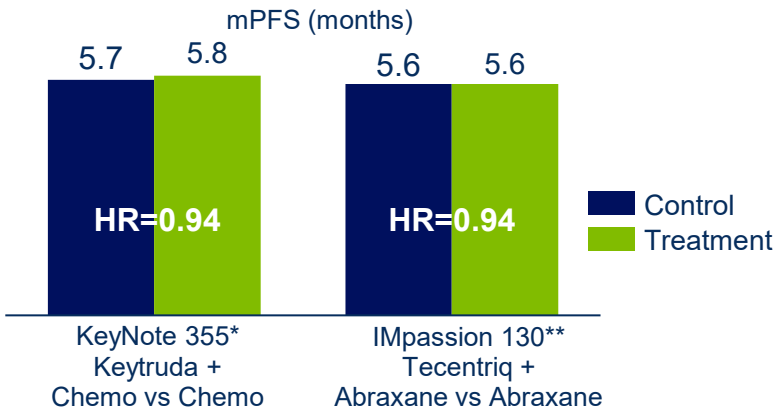
[a]Estimated cases based on 2013-2017 cases.
[†]5-Year relative survival percent, TNBC by SEER Summary Stage 2000.
[‡]PD-L1–stained tumor-infiltrating immune cells; positive PD-L1 threshold of 0.01 (≥1% of tumor area).

1. National Cancer Institute. Accessed November 24, 2020. https://seer.cancer.gov/statfacts/html/breast-subtypes.html 2. American Cancer Society. Accessed November 24, 2020. https://www.cancer.org/cancer/breast-cancer/understanding-a-breast-cancer-diagnosis/types-of-breast-cancer/triple-negative.html 3. National Cancer Institute. Accessed November 23, 2020. https://seer.cancer.gov/statfacts/html/breast-subtypes.html 4. Davis AA, Patel VG. *J Immunother Cancer.* 2019;7(1):278. 5. Matikas A et al. *Clin Cancer Res.* 2019;25(18):5717-5726, 6. LEK forecast based on LEK interviews, research and analysis, Decision Research Group data Dec 2020

PD-L1(-) Patients: No CPI Has Demonstrated Benefit Over SOC Chemo

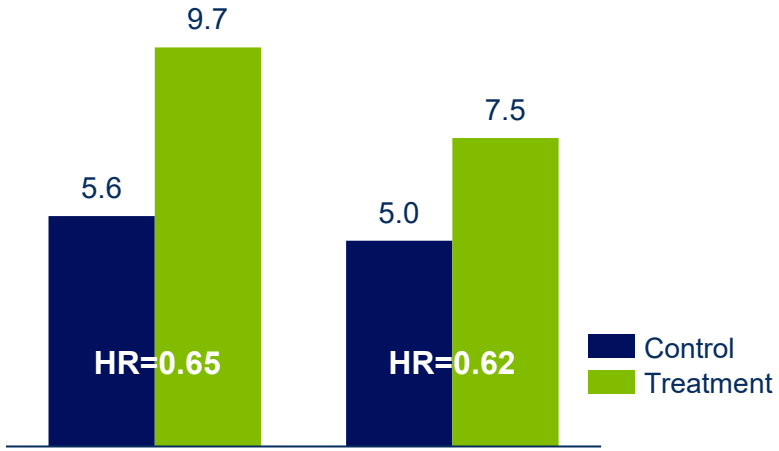
PD-L1(-)#
~60% of 1L TNBC patients

NO CPIs Approved



PD-L1(+)#
~40% of 1L TNBC patients

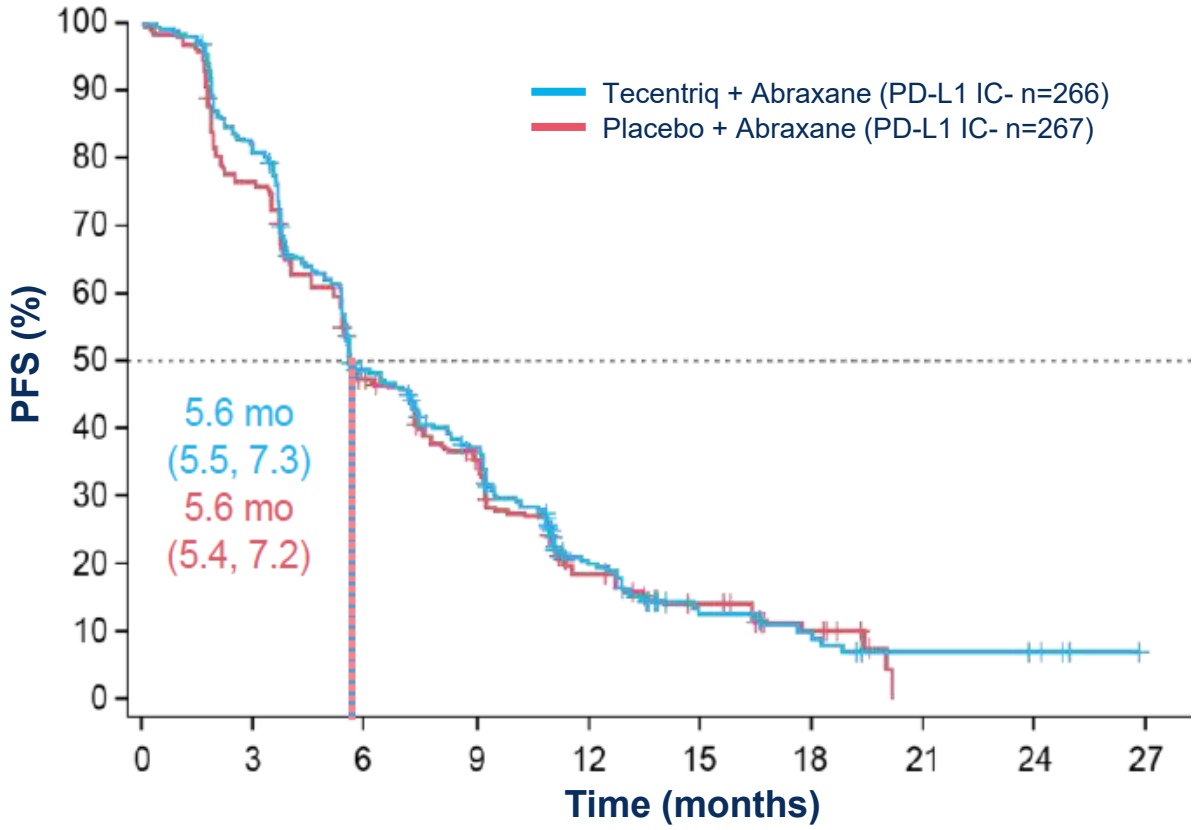
ONLY 1 CPI Approved in US



2 yr OS 48.2 %^

3 yr OS 36.0%^^

IMpassion130 PD-L1(-)**



*Cortes, Lancet December 5, 2020; 396:1817-28, **Emens, LA, IMpassion130, 2018 SABCS Abstract GS1-04, ^Rugo, ESMO 2021, Abstract LBA16, ^^ Emens, LA July 1,2021, Annals of Oncology., # Keynote 355 PD-L1 expression assessed by The 22C3 Dako PharmDx IHC assay, which factors in expression in both tumor cells and tumor-infiltrating immune cells. A CPS score is calculated and a score of ≥10% is positive and CPS <10% is negative. IMpassion130 PD-L1 expression assessed by IC ≥1% of tumor area is positive and IC <1% is negative as determined by the VENTANA PD-L1 (SP142) Assay.

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MARIO-4: First Registration Study of Eganelisib

MARIO 4
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

- Based on strength of efficacy, safety and translational medicine data from MARIO-3
- Randomized, double-blind, placebo-controlled study with PFS and OS endpoints
- PD-L1(-) patients: eganelisib + chemotherapy + checkpoint inhibitor vs chemotherapy
- PD-L1(+) patients: eganelisib + chemotherapy + checkpoint inhibitor vs chemotherapy + checkpoint inhibitor
- Study design to be finalized pending feedback from global regulatory authorities
- MARIO-4 Study to be initiated by end of 2022

Designed to Demonstrate Eganelisib's Ability to Improve and Extend the Clinical Benefit of Tecentriq + Abraxane in 1L mTNBC

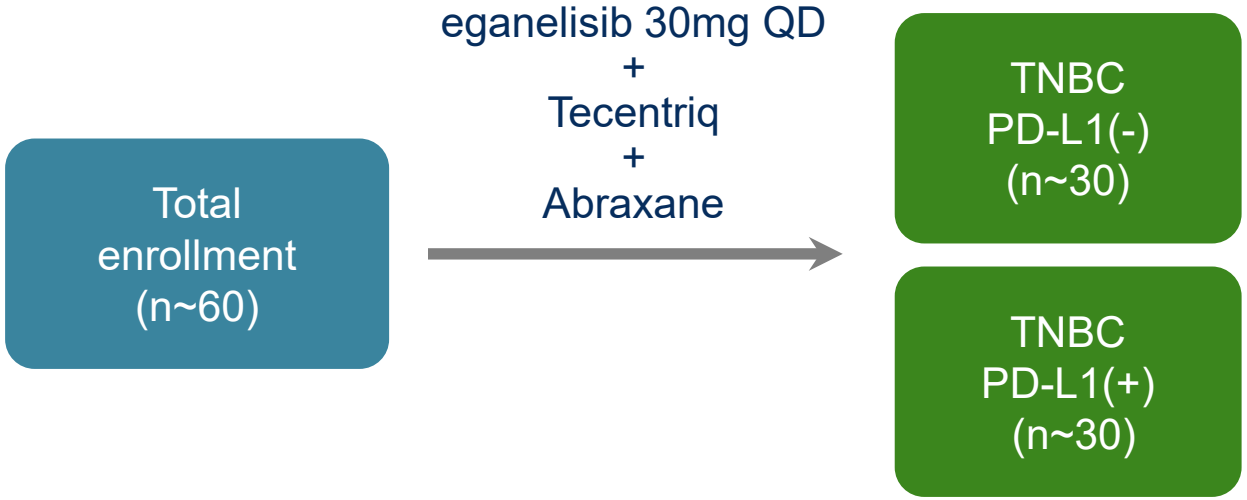
MARIO 3
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Eganelisib FDA Fast Track Designation for TNBC

MARIO-3 TNBC evaluating the potential of eganelisib to improve on IMpassion130 results*

Addition of eganelisib to Tecentriq and Abraxane in front-line TNBC

- Inclusion/exclusion criteria per IMpassion130 study
- Two prespecified cohorts: PD-L1(-) and PD-L1(+)
- Primary objective: CR rate
  CR benchmark ~7% ITT; 10% PD-L1(+)
- Secondary objectives: PK, PD, ORR, DCR, and PFS; ORR for PD-L1(-) cohort
- PD-L1 status determined via central lab (histogeneX) with Ventana SP142 antibody to align with IMpassion130



CR, complete response; DCR, disease control rate; ITT, intent-to-treat; ORR, overall response rate; PD, pharmacodynamics; PD-L1, programmed death-ligand 1; PFS, progression-free survival; PK, pharmacokinetics; QD, once daily; SOC, standard of care; mTNBC, metastatic triple-negative breast cancer; TNBC, triple-negative breast cancer.

Immune Cell Score ≥ 1% cutoff for PD-L1(+)

*Schmid P et al, N Engl J Med. 2018;379(22):2108-2121.

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No New Safety Signals: Profile Consistent with Expectations for the 3 Component Drugs

MARIO 3 MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Most Common Treatment-Related TEAEs in ≥ 10% of All Treated Patients** (N=50)

Preferred or Grouped Term#	Treatment-related TEAE (All)		Treatment-related TEAE (≥ Gr. 3)	
Nausea	25	(50.0)	0	(0.0)
Fatigue	24	(48.0)	3	(6.0)
Skin AEs	18	(36.0)	6	(12.0)
Diarrhea	15	(30.0)	3	(6.0)
Hepatic AEs*	14	(28.0)	9	(18.0)
Alopecia	13	(26.0)	0	(0.0)
Vomiting	11	(22.0)	1	(2.0)
Neutropenia AEs	11	(22.0)	8	(16.0)
Pyrexia	9	(18.0)	0	(0.0)

Preferred or Grouped Term	Treatment-related TEAE (All)		Treatment-related TEAE (≥ Gr. 3)	
Peripheral sensory neuropathy	9	(18.0)	3	(6.0)
Decreased appetite	8	(16.0)	0	(0.0)
Headache	8	(16.0)	0	(0.0)
Stomatitis	7	(14.0)	0	(0.0)
Dysgeusia	7	(14.0)	0	(0.0)
Constipation	6	(12.0)	0	(0.0)
Weight decreased	5	(10.0)	1	(2.0)
Hypokalaemia	5	(10.0)	0	(0.0)

Presented in descending order of All Treatment-Related TEAE
*One Grade 4 event and No Hy's Law
**No treatment-related Grade 5 AEs
Grouped terms:
Skin AEs: rash maculo-papular, rash, pruritus, dermatitis, dry skin, photosensitivity reaction, rash erythematous
Hepatic AEs: ALT increased, AST increased, ALP increased, blood bilirubin increased, autoimmune hepatitis
Neutropenia AEs: neutropenia and neutrophil count decreased

Soliman H, et al. SABCS 2021

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Triplet Manageability Compares Favorably to Historical Doublet

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MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

	MARIO-3* Eganelisib+Tecentriq+Abraxane (N=50) n (%)		IMpassion130** Tecentriq+Abraxane (N=460) n (%)	
All-causality AEs				
Any grade	47	(94.0)	457	(99.3)
Grade 3 or 4	32	(64.0)	233	(50.7)
Grade 5	2	(4.0)	6	(1.3)
Serious AEs	15	(30.0)	110	(23.9)
AE leading to any treatment withdrawal	9	(18.0)	88	(19.1)
AE leading to Atezo withdrawal	8	(16.0)	37	(8.0)
AE leading to Nab-Pac withdrawal	8	(16.0)	85	(18.5)
Treatment-related AEs* **				
Any grade	47	(94.0)	444	(96.5)
Grade 3 or 4	30	(60.0)	191	(41.5)
Grade 5	0	(0.0)	2	(0.4)
Serious AEs	9	(18.0)	58	(12.6)

* MARIO-3: Data listed are treatment emergent adverse event (TEAE).
** Emens et al., Annal of Oncology 2021
*** In MARIO-3, the data listed are for TEAEs that were related to any study drug
Soliman H, et al. SABCS 2021

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Immune Activation Shrinks Tumors Regardless of PD-L1 Status

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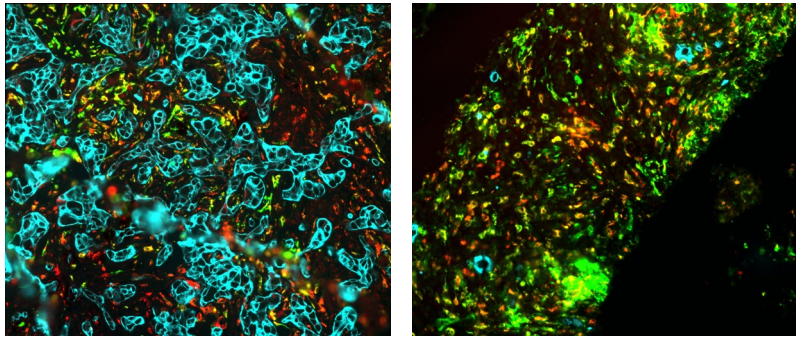
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Paired Tumor Biopsies

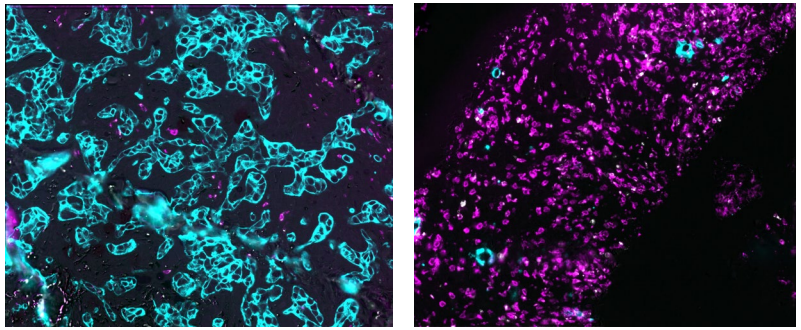
PD-L1(-) Patient with PR

Day 0 | 2 mo

Tumor M2 HLADR+ M1



Tumor CD8 T Cells Activated T Cell

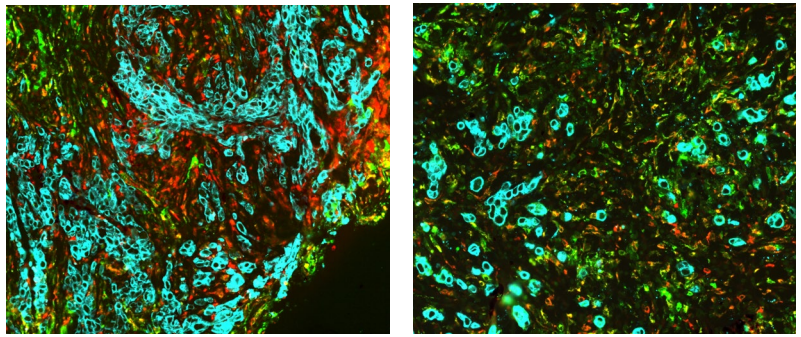


Patient Ongoing Over 13 Months

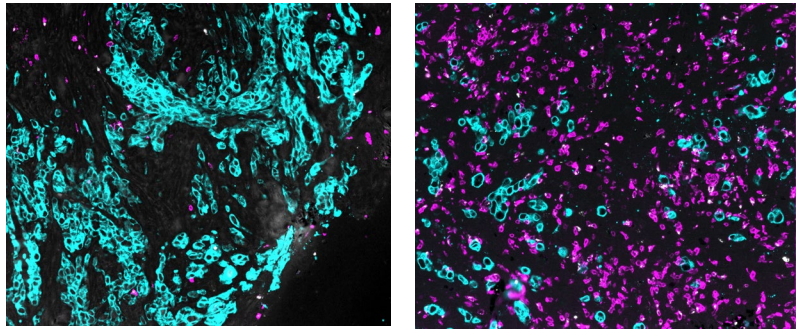
PD-L1(+) Patient with PR

Day 0 | 2 mo

Tumor M2 HLADR+ M1



Tumor CD8 T Cells Activated T Cell



Patient Ongoing Over 13 Months

Immune Cell Score ≥ 1% cutoff for PD-L1(+)

Soliman H, et al. SABCS 2021

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PD-L1 Expression Increased Following Eganelisib Treatment

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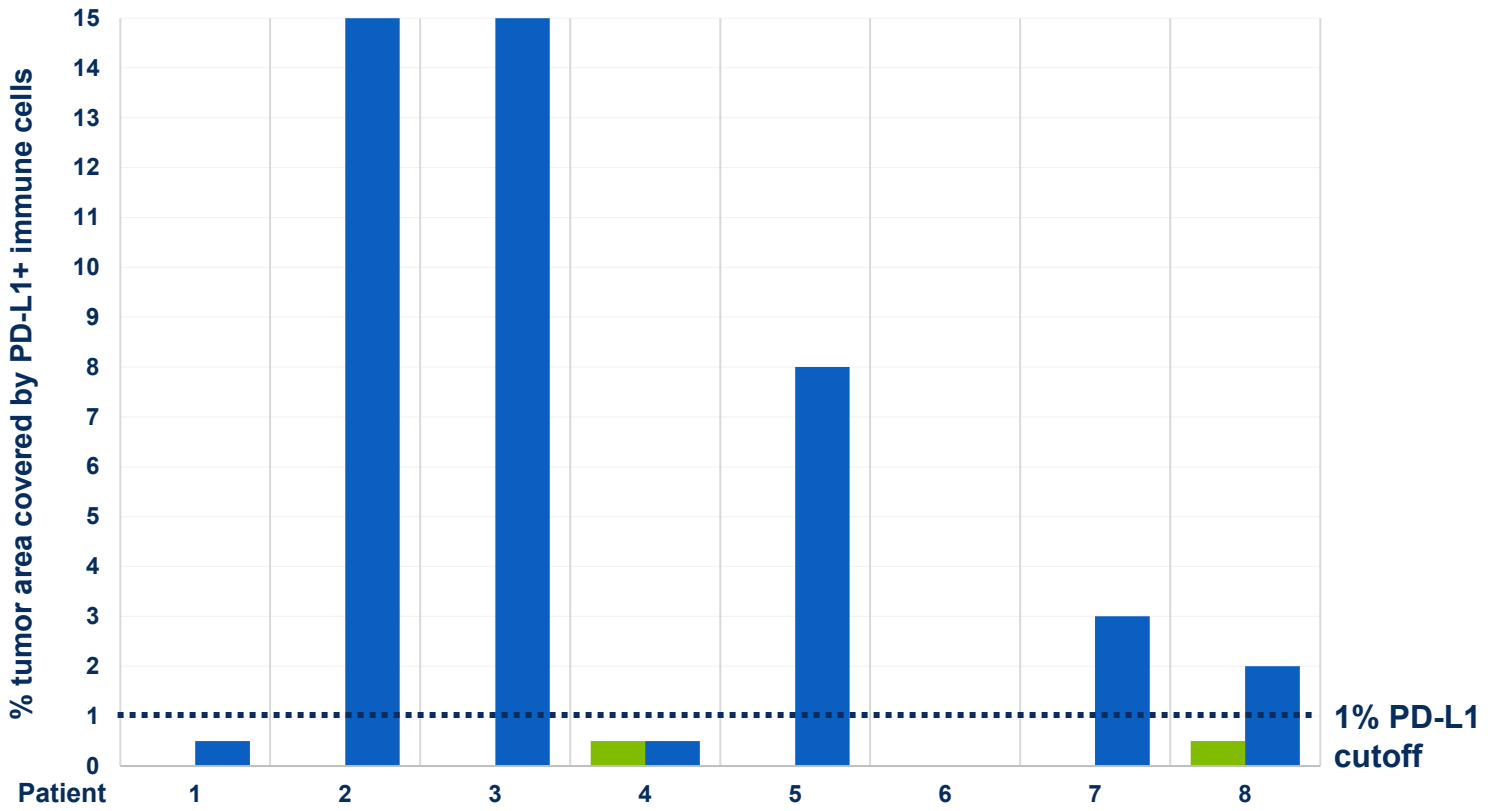
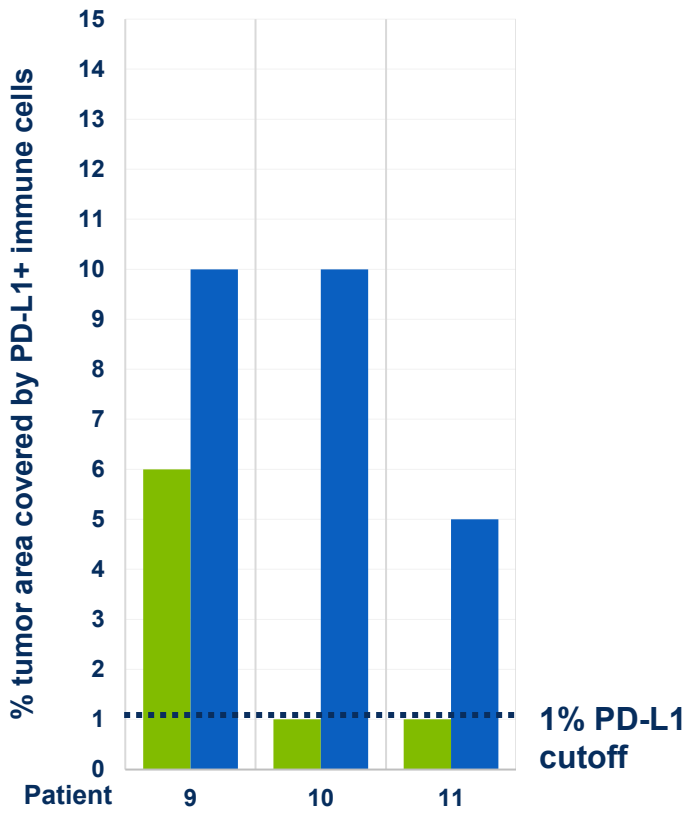
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

PD-L1(-) at Baseline



PD-L1(+) at Baseline



11 Paired Tumor Biopsies

Baseline

2 months

Soliman H, et al. SABCS 2021

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88.6% of Evaluable Patients Achieved Tumor Reduction

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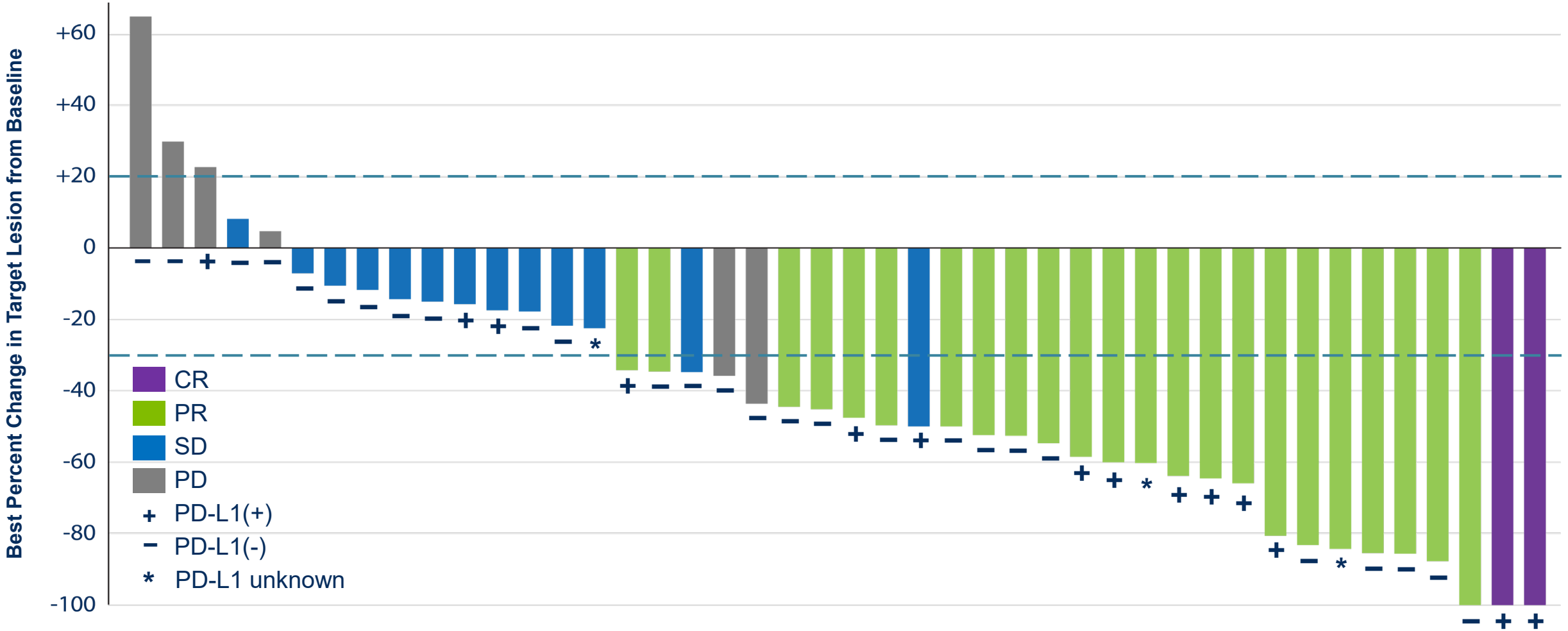
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Tumor Reduction in 92.8% of PD-L1(+) and 85.2% of PD-L1(-) Patients



Immune Cell Score ≥ 1% cutoff for PD-L1(+)
Soliman H, et al. SABCS 2021

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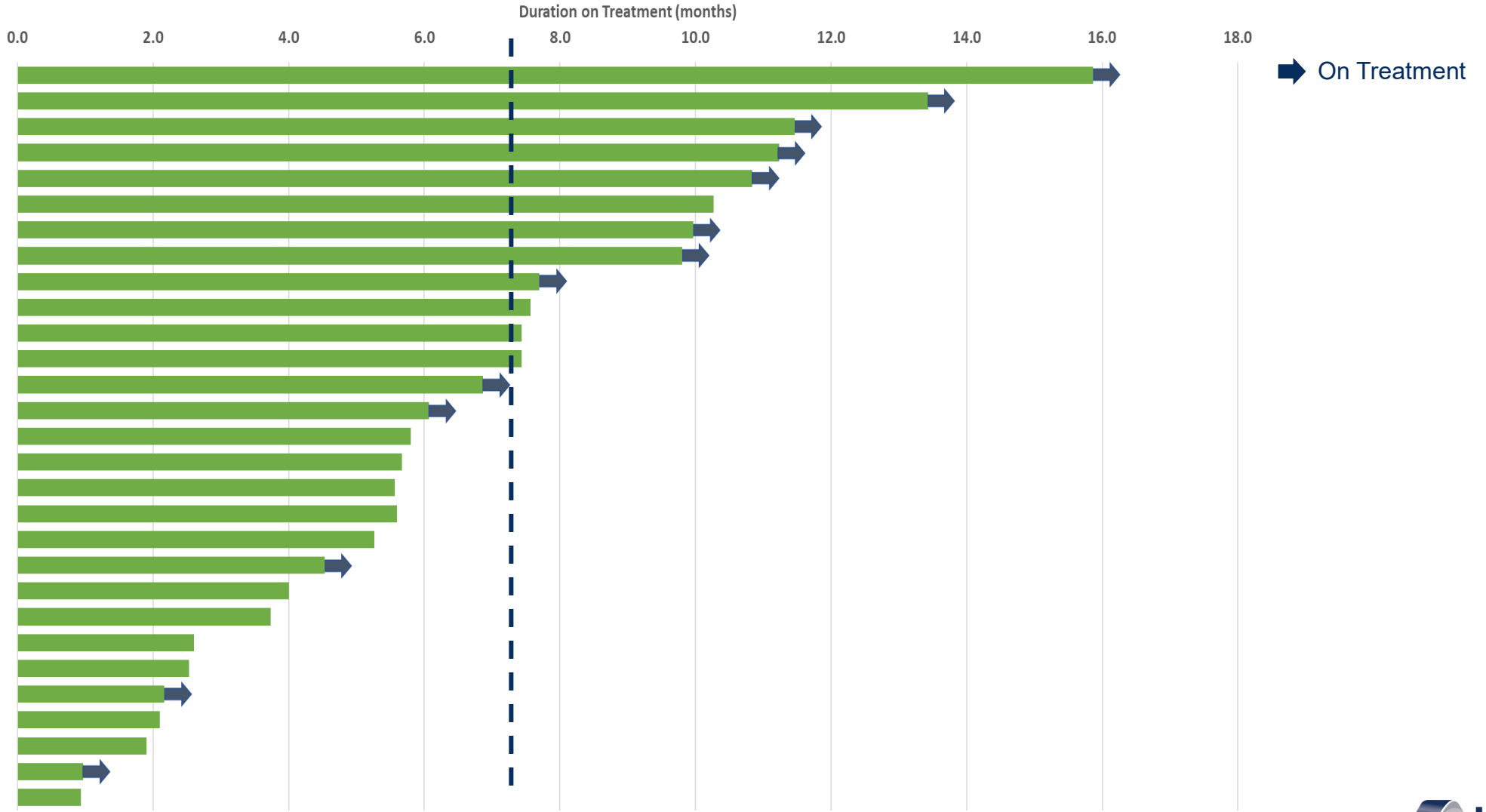
Durable, Ongoing Benefit in PD-L1(-) Patients



Soliman H, et al. SABCS 2021

mPFS Longer than IMpassion130 PD-L1(-) and PD-L1(+) Benchmarks

MARIO-3 MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Median Duration of Follow Up of 9.9 Months

Median PFS in Patients With Both PD-L1(-) and PD-L1(+) Tumors		
	PD-L1(-)	PD-L1(+)
MARIO-3 (eganelisib + Tecentriq + Abraxane)	7.3 months (N=27)	11.0 months (N=14)
Benchmark IMpassion130[1] (Tecentriq + Abraxane)	5.6 months (N=266)	7.5 months (N=185)

1. Schmid P et al. *Lancet*. 2020; Soliman H, et al. SABCS 2021

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Positive Signal of PFS Durability in PD-L1(-) Patients vs SOC Chemo

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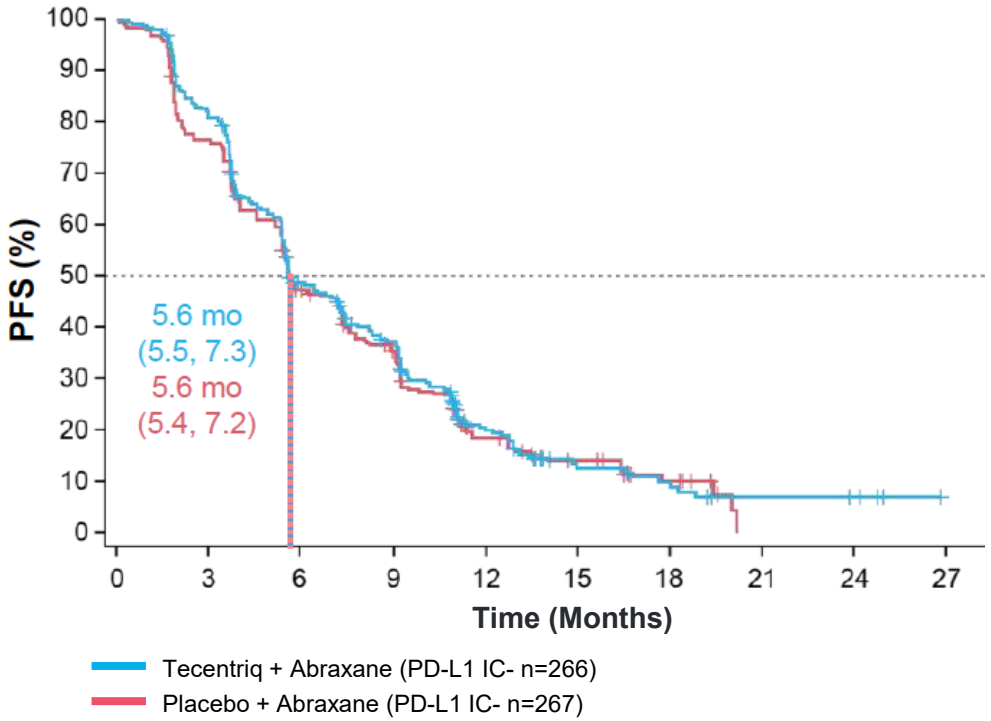
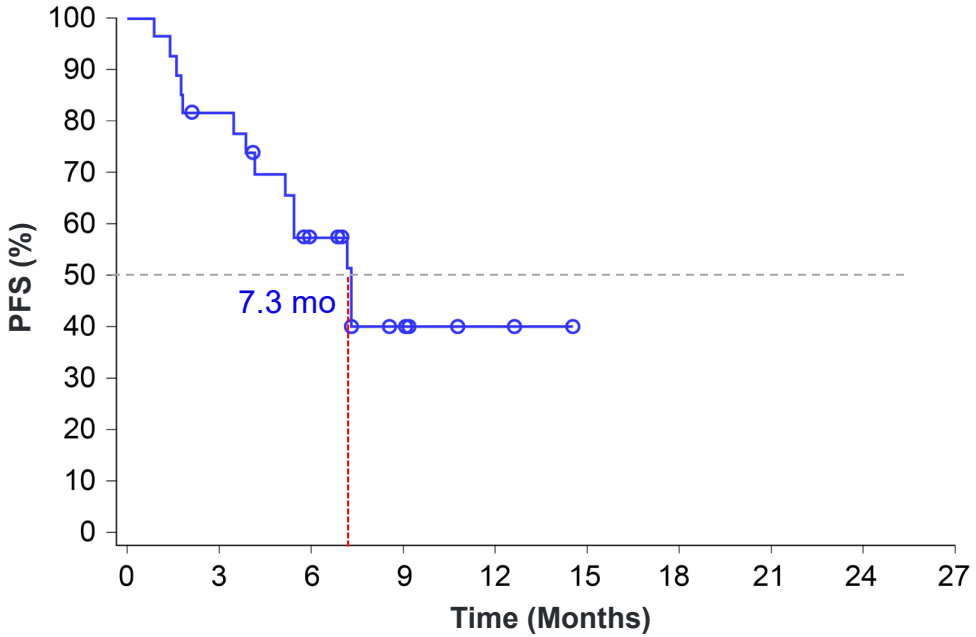
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Potential to Address Need for Improvement Over SOC Chemo

Historical IMpassion130 PD-L1(-)*



MARIO-3 PD-L1(-)



*Emens LA, et al. IMpassion130. SABCS 2018 (program #GS1-04)

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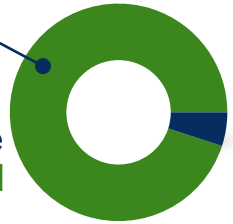
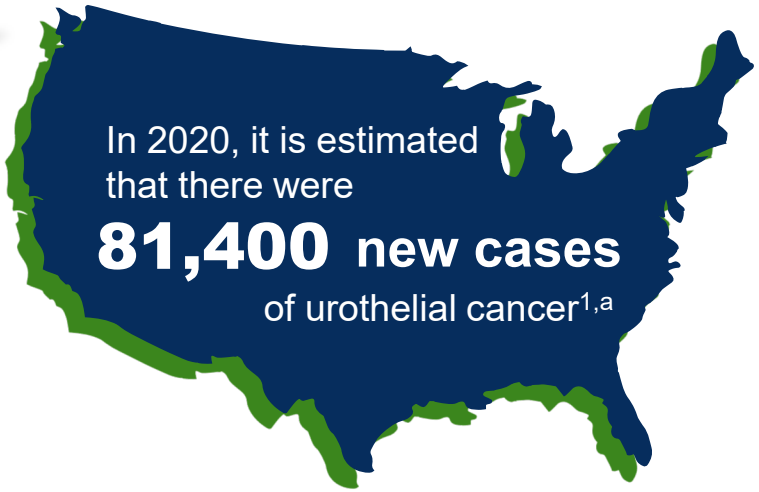
Significant Unmet Need in Metastatic Urothelial Cancer

UC Is the Most Common Type of Bladder Cancer[1]

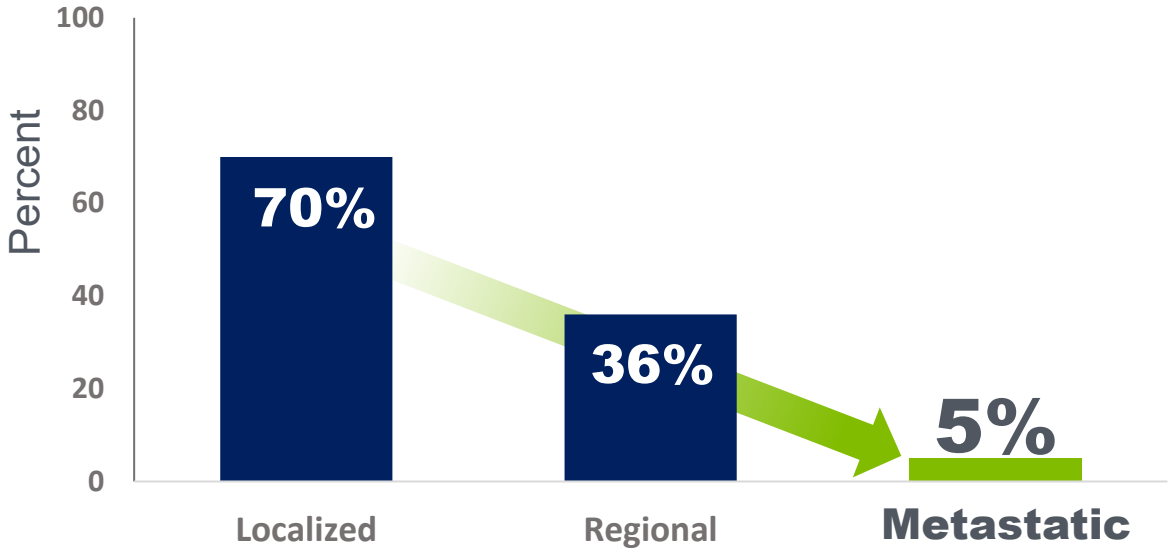


95% of bladder cancers are **urothelial cancer**



Majority of mUCs are PD-L1 negative[3]

5-Year Survival Rate by Stage at Diagnosis of UC[2,*]



Median Overall Survival for 2L mUC Patients with SOC Opdivo		
	PD-L1(-)	ITT
Checkmate 275	6.0 months (n=146, 54%)	8.6 months (n=270)

[a]Estimated cases based on 2013-2017 cases. *5-Year relative survival percent, UC by SEER Summary Stage 2000.
mUC, metastatic urothelial cancer; PD-L1, programmed death-ligand 1; SEER, Surveillance, Epidemiology, and End Results; UC, urothelial cancer.

1. National Cancer Institute. Accessed December 16, 2020. https://seer.cancer.gov/statfacts/html/urinb.html 2. National Cancer Institute. Accessed December 16, 2020. https://www.cancer.gov/types/bladder/patient/bladder-treatment-pdq#Keypoint2 3. Bellmunt J et al. *Ann Oncol.* 2015;26(4):812-817. 4. National Cancer Institute. Accessed July 20, 2021. https://seer.cancer.gov/statfacts/html/urinb.html

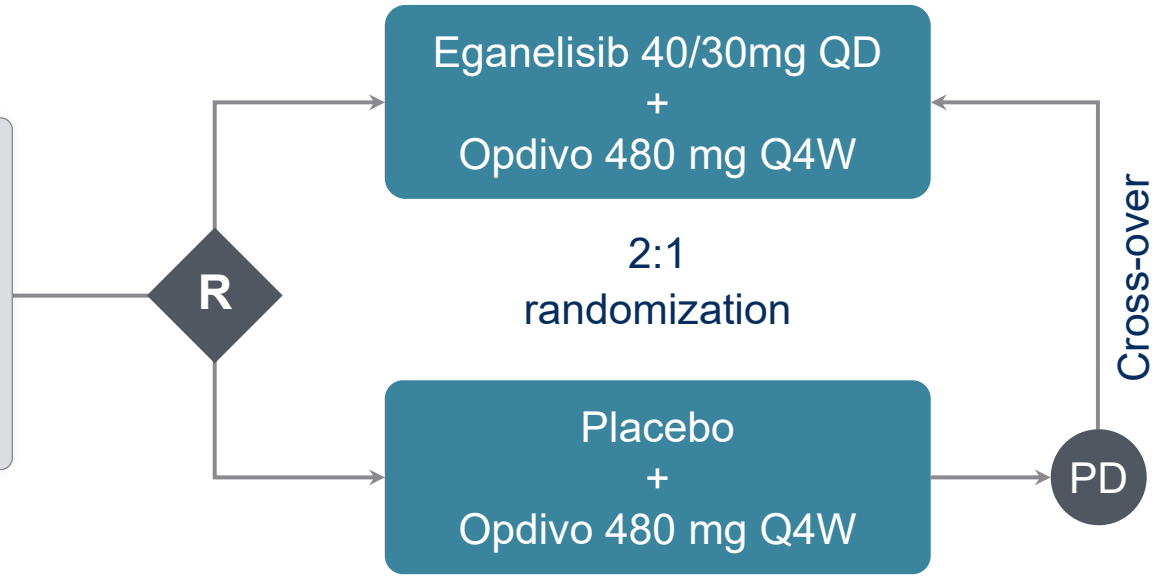
MARIO-275: Addition of Eganelisib to Standard of Care Opdivo in I/O Naïve Urothelial Cancer Patients, Including PD-L1(-) Patients

MARIO 275
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

FDA Fast-Track Designation

Advanced Platinum Refractory 2nd Line Urothelial Cancer Patients

- Inclusion/exclusion criteria per BMS Checkmate 275 study

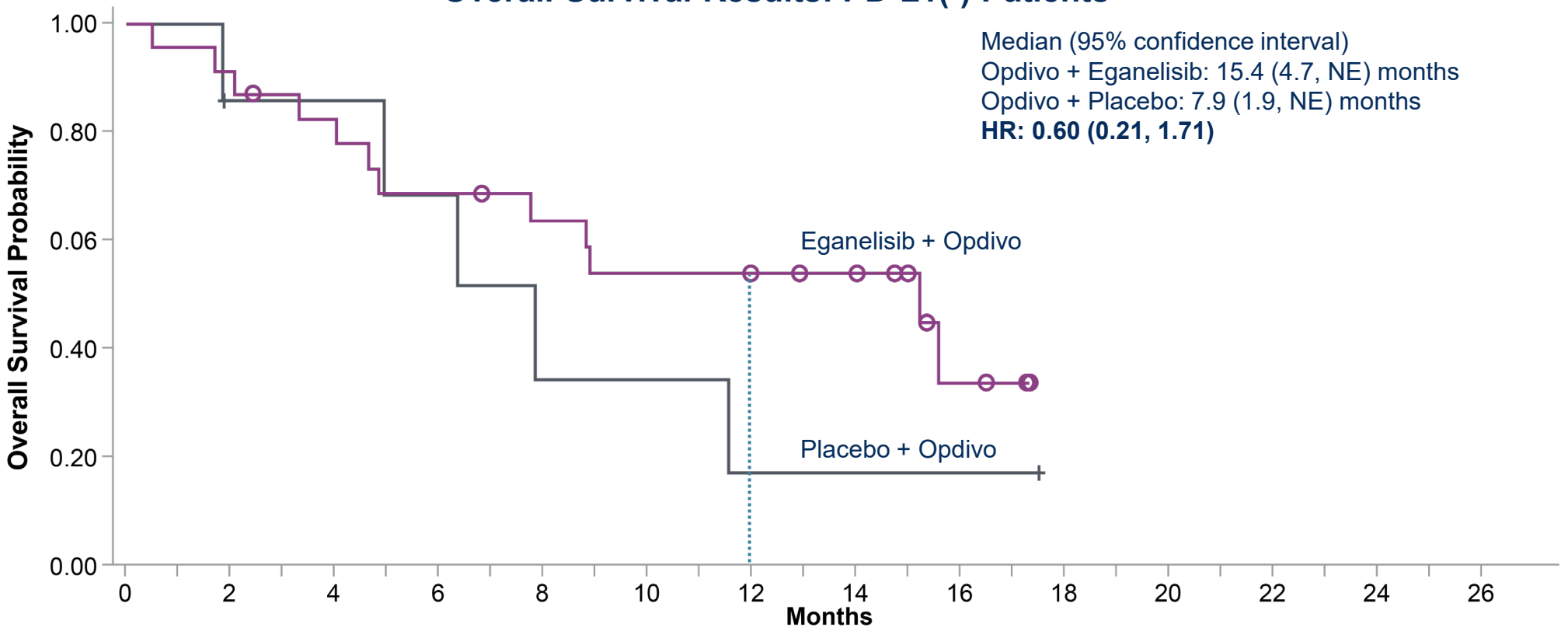


DOR, duration of response; MDSC, myeloid-derived suppressor cells; ORR, overall response rate; OS, overall survival; PD-L1, programmed death-ligand 1; PFS, progression-free survival; Q4W, once every four weeks; QD, once a day.
* PD-L1 expression measured in baseline/archival tumor biopsies with Dako PD-L1 immunohistochemical 28-8 pharmDx kit approved for nivolumab in UC, except 2 biopsies tested with 22C3 PD-L1 antibody prior to study (Tumor Proportion Score < 1% cutoff for PD-L1 (-)); Findings presented include data up to June 26, 2021

mOS of PD-L1(-) Pts on Combo Arm: 15.4 mos vs 7.9 mos on Control HR of 0.60 Indicating 40% Reduction of Risk of Death

MARIO 275
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Overall Survival Results: PD-L1(-) Patients



Eganelisib+Opdivo (N=23)	23	21	18	15	13	11	10	9	3	0		
Placebo+Opdivo (N=7)	7	5	5	4	2	2	1	1	1	0		

One Year OS Landmark:
54% on Combo versus
17% on Opdivo

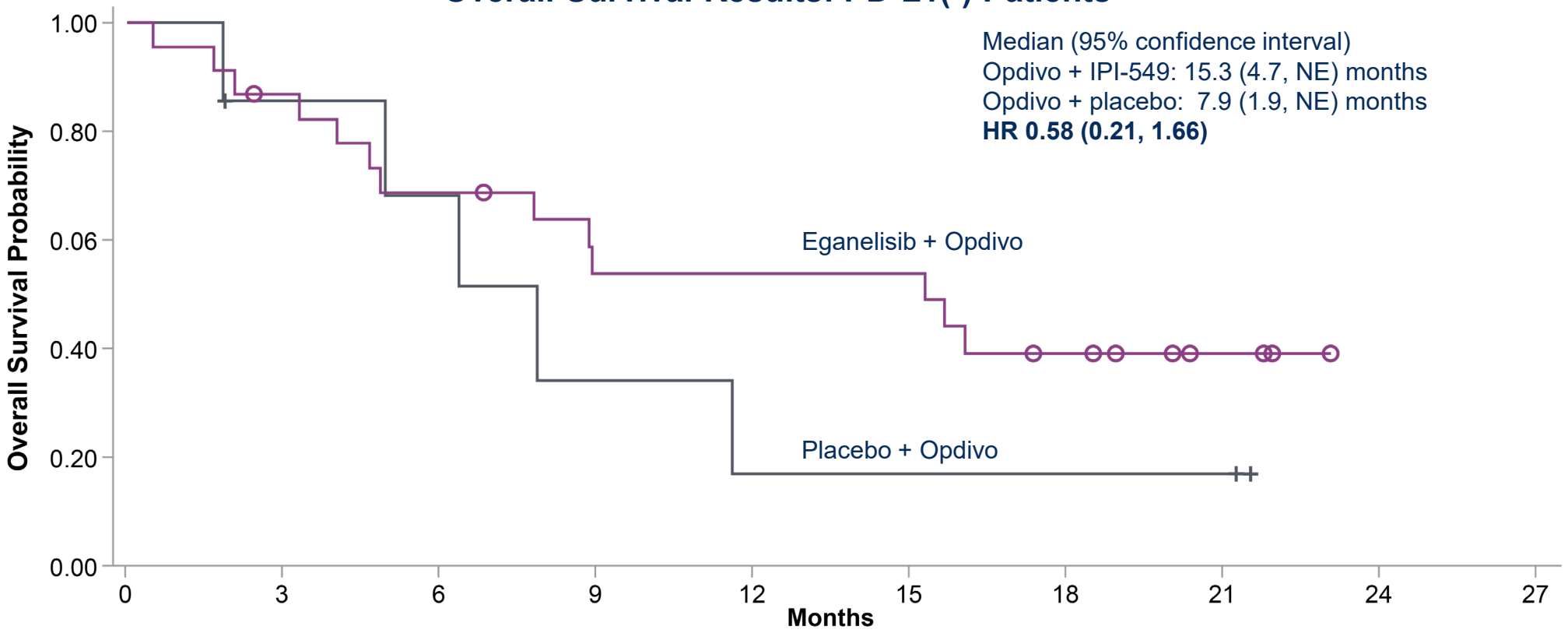
Censoring based on last available clinical visit; Tumor Proportion Score < 1% cutoff for PD-L1 (-)
Data Snapshot: 26 June 2021

Infinity PHARMACEUTICALS

mOS of PD-L1(-) Pts on Combo Arm: 15.3 mos vs 7.9 mos on Control HR of 0.58 Indicating 42% Reduction of Risk of Death

MARIO 275
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY

Overall Survival Results: PD-L1(-) Patients



Eganelisib+Opdivo (N=23)	23	19	15	11	11	11	7	3	0	0
Placebo + Opdivo (N=7)	7	5	4	2	1	1	1	1	0	0

OS (mITT): censoring based on last available clinical visit (Figures 14.1.1.3.5, Table 14.2.5.4)

Data Snapshot 30 November 2021

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2022 Milestones: Two Study Starts and Four Data Readouts

Initiation of New Studies

1. MARIO-4 registration enabling study in frontline mTNBC by end of 2022
2. MARIO-P Platform Clinical Program in 3Q 2022

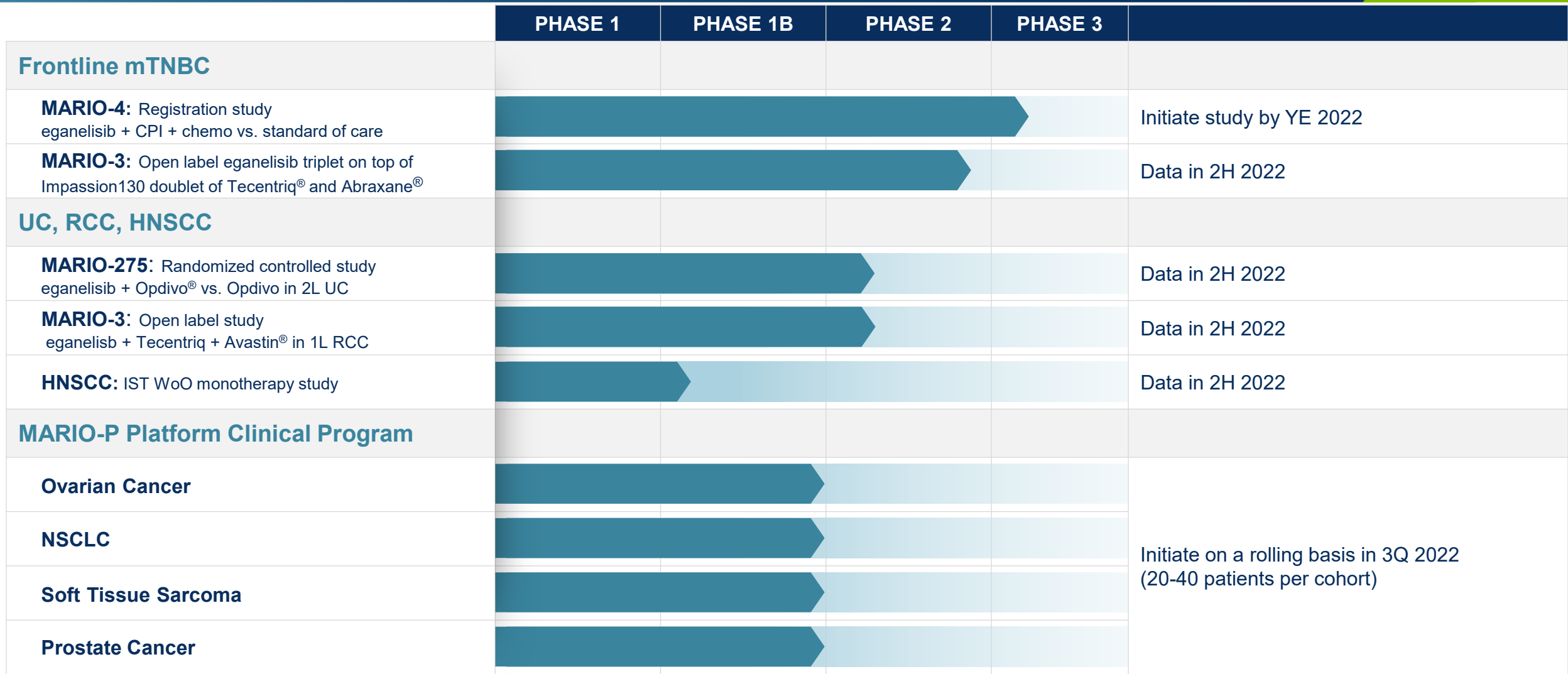
2022 new study starts and data to inform additional registration studies in 2023 and beyond

Data in 2H 2022

- MARIO-3 TNBC
- MARIO-275 UC
- MARIO-3 RCC
- HNSCC Window of Opportunity IST

Advancing and Expanding MARIO Clinical Development Program
MAcrophage Reprogramming in Immuno-Oncology

MARIO
MACROPHAGE REPROGRAMMING IN IMMUNO-ONCOLOGY



Triple Negative Breast Cancer (TNBC)
Urothelial Cancer (UC)
Renal Cell Carcinoma (RCC)
Head and Neck Squamous Cell Cancer (HNSCC)
Non Small Cell Lung Cancer (NSCLC)

Infinity™ PHARMACEUTICALS

2022 Financial Guidance

- **Cash at March 31, 2022 (unaudited): $67.1 million**
- **2022 Net Loss: $45 million to $55 million**
- **2022 Year-End Cash: $25 million to $35 million**

Infinity's financial guidance does not include potential additional funding or business development activities.

Eganelisib
Addressing Significant Patient Need With Next-Generation Immunotherapies

May 2022

Infinity™ PHARMACEUTICALS