2025 Bernstein Insights: Healthcare Leaders and Disruptors

September 25, 2025



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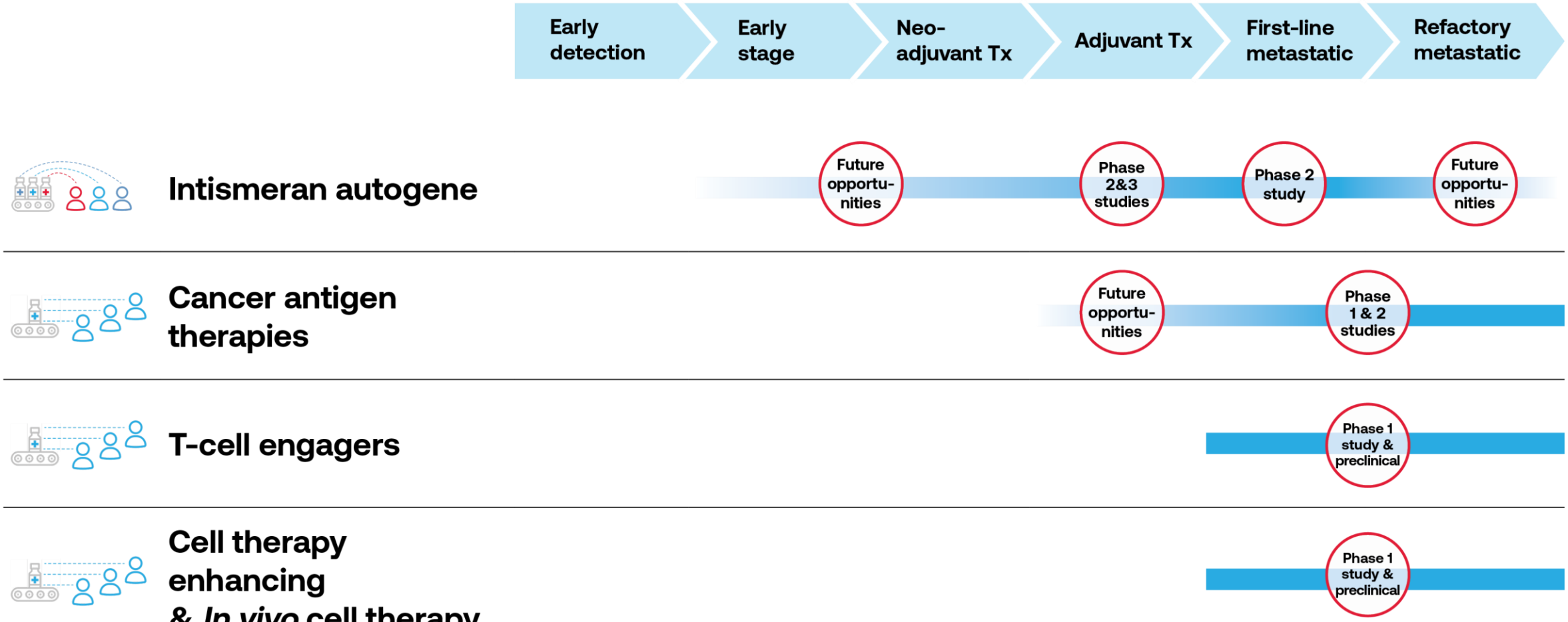
Forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including statements regarding: the potential of Moderna's oncology portfolio to treat patients across all stages of cancer; the development plan for mRNA-4157 and Moderna's off-the-shelf cancer antigen therapies; the conduct of additional trials; anticipated milestones for Moderna's pipeline programs, including expected data readouts; the ability for mRNA-4157 in combination with KEYTRUDA to demonstrate a meaningful improvement in recurrence-free survival and distant metastasis-free survival compared with KEYTRUDA alone; and the safety and tolerability profile for mRNA-4157. In some cases, forward-looking statements can be identified by terminology such as "will," "may," "should," "could," "expects," "intends," "plans," "aims," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. The forward-looking statements in this presentation are neither promises nor guarantees, and you should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond Moderna's control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks, uncertainties, and other factors include, among others, those risks and uncertainties described under the heading "Risk Factors" in Moderna's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the U.S. Securities and Exchange Commission (SEC), and in subsequent filings made by Moderna with the SEC, which are available on the SEC's website at www.sec.gov. Except as required by law, Moderna disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this presentation in the event of new information, future developments or otherwise. These forward-looking statements are based on Moderna's current expectations and speak only as of the date of this presentation.

Advancing a vision to treat patients across all stages of cancer



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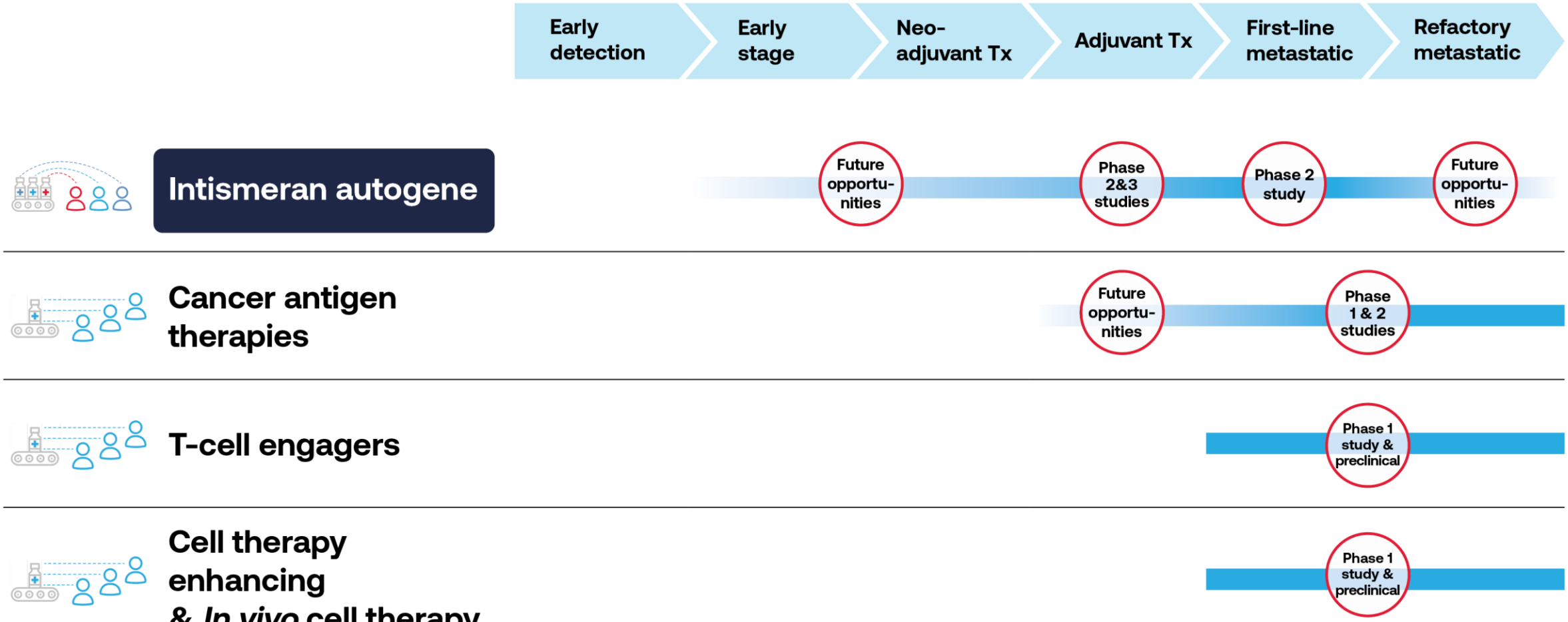
Advancing a vision to treat patients across all stages of cancer



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Intismeran autogene (mRNA-4157/V940): Designed to target an individual patient's unique tumor mutation

How are individualized neoantigen therapies made?

First, doctors take a sample of a patient's tumor and blood so they can identify the **unique genetic mutations** of that patient's cancer.

An analysis is performed to identify the best cancer fingerprint proteins that may **train and activate** the patient's immune cells.

An individualized neoantigen therapy is created for that patient.

The mRNA in the individualized neoantigen therapy helps show parts of the cancer **fingerprint proteins** to the immune system.

The patient's immune system may now better **recognize and fight** the patient's cancer.

Administration of INT

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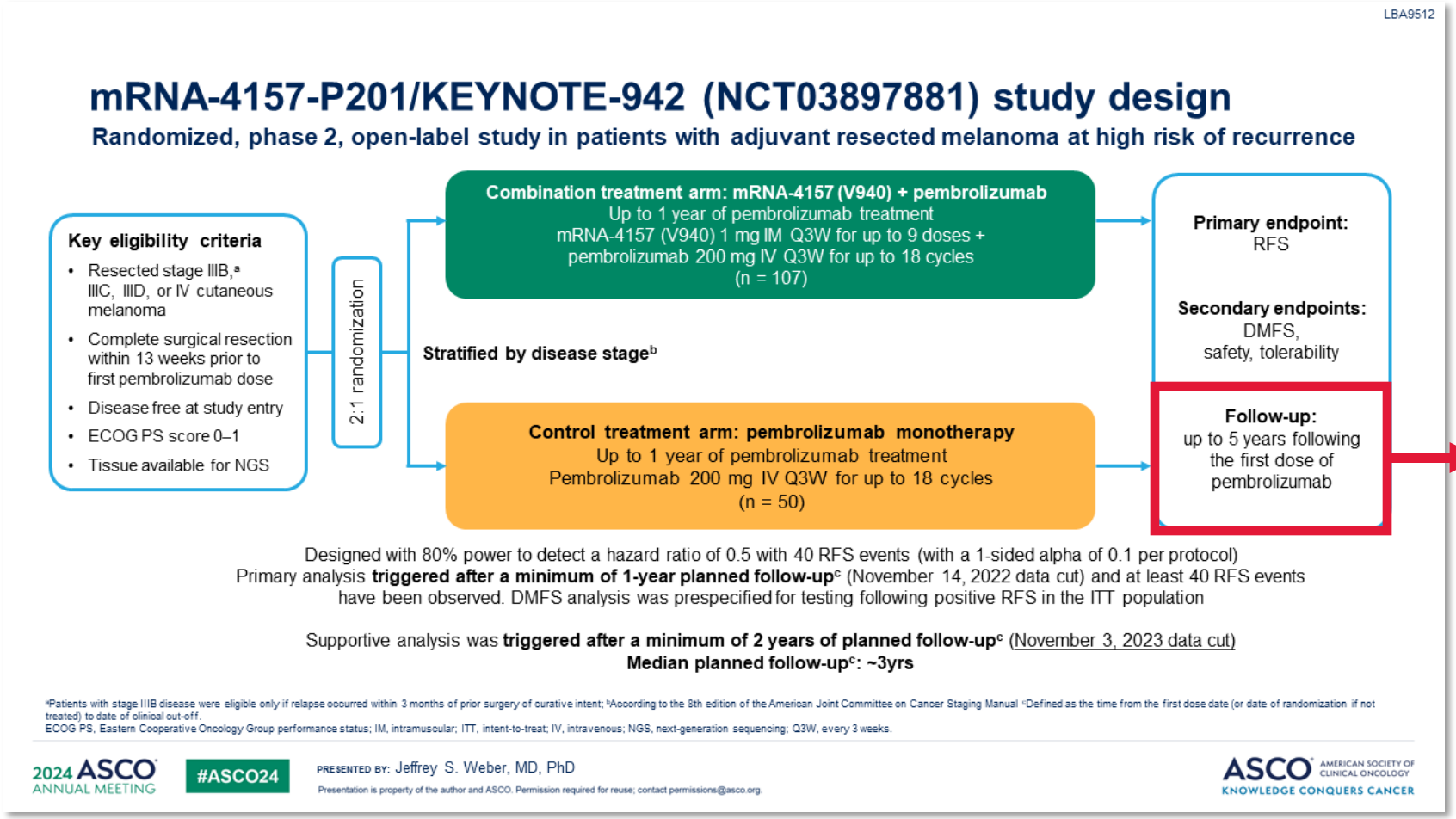
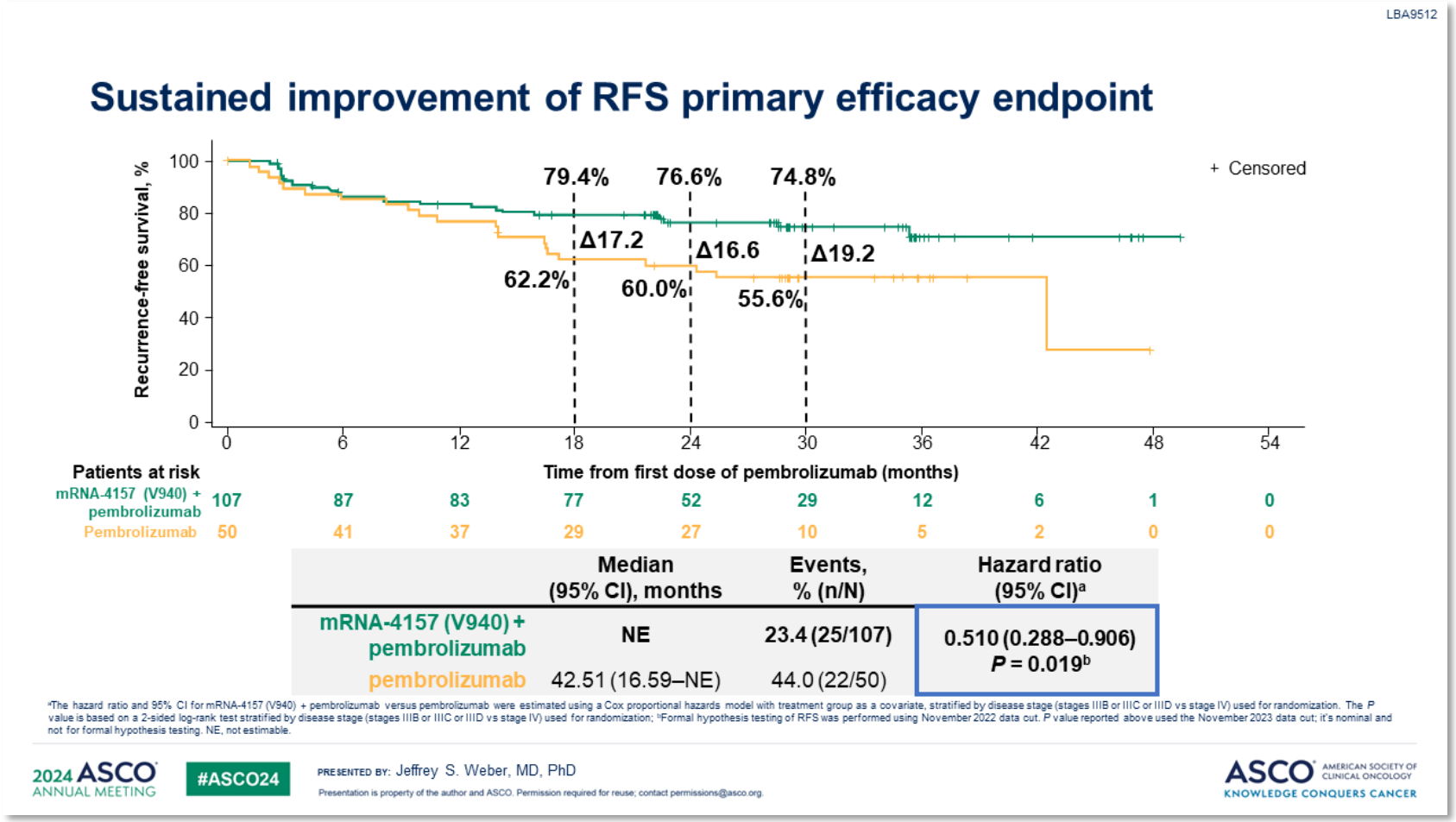
Randomized phase 2 trial design comparing mRNA-4157/V940 in combination with KEYTRUDA to KEYTRUDA alone in adjuvant melanoma



Results from this trial at ~2 years of follow-up and ~3 years of follow-up were presented at the American Society of Clinical Oncology in 2023 and 2024, respectively

5 year follow-up from this phase 2 study is expected in 2026

Recurrence free survival rate of mRNA-4157/V940 in combination with KEYTRUDA was 74.8% as compared to 55.6% for KEYTRUDA alone, at ~3 years of follow-up



At a median planned follow-up of the Phase 2b study at 34.9 months, **mRNA-4157/V940 in combination with KEYTRUDA reduced the risk of recurrence or death by 49%**

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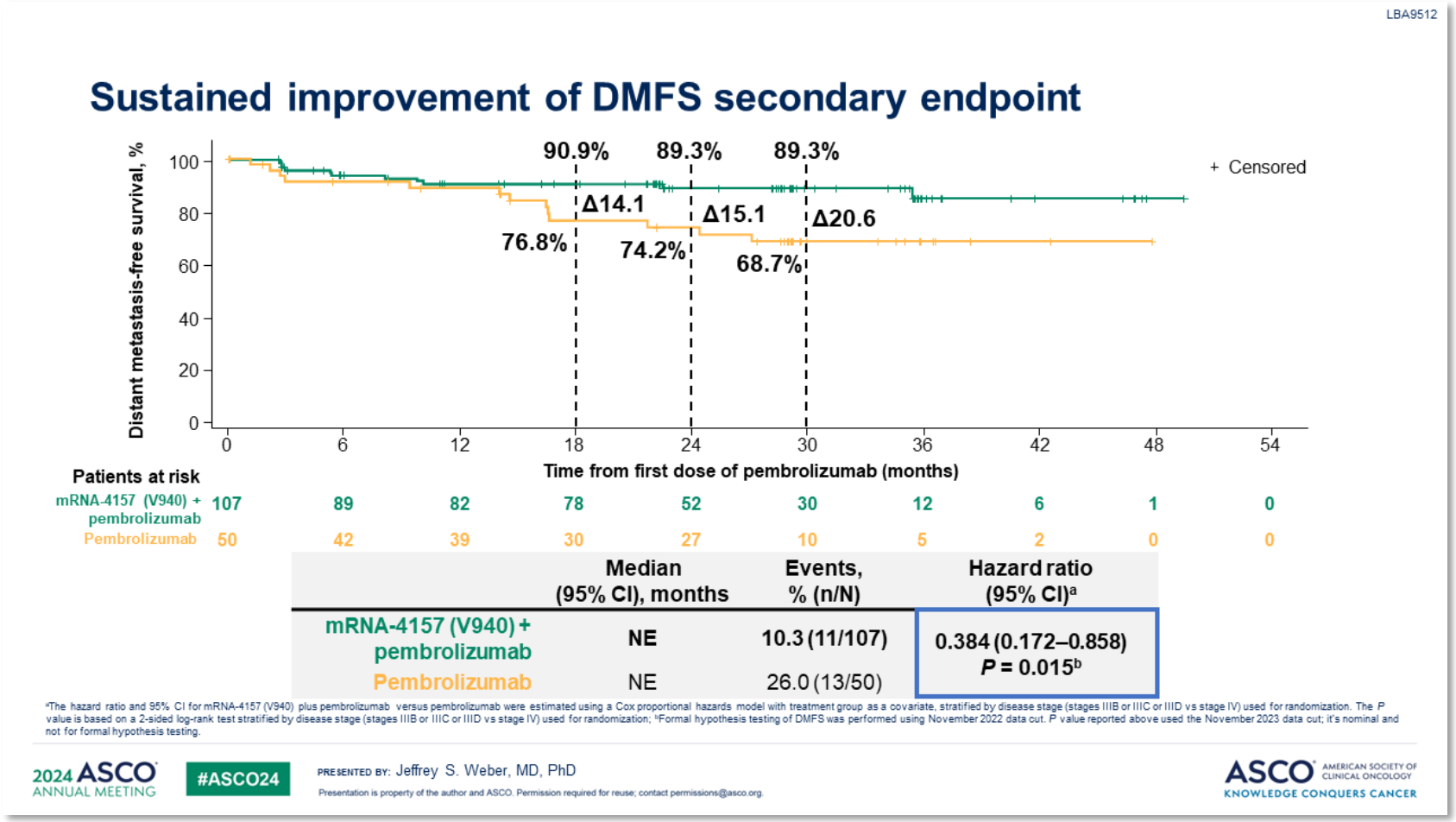
Distant metastasis-free survival is a key secondary endpoint of the phase 2 study



At ~ 3 years of follow-up, mRNA-4157/V940 in combination with KEYTRUDA also continued to demonstrate a meaningful improvement in distant metastasis-free survival (DMFS) compared with KEYTRUDA alone, reducing the risk of developing distant metastasis or death by 62%

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Safety and tolerability from the Phase 2 adjuvant melanoma trial

LBA9512

3-year safety follow-up on safety demonstrates a manageable profile consistent with the primary analysis

	mRNA-4157 (V940) + pembrolizumab (n = 104)		Pembrolizumab (n = 50)	
Event, n (%)	Any grade	Grade ≥ 3	Any grade	Grade ≥ 3
Any AE	104 (**100%**)	36 (**34.6%**)	46 (**92.0%**)	18 (**36.0%**)
Any treatment-related AE	104 (**100%**)	26 (**25.0%**)	41 (**82.0%**)	10 (**20.0%**)
Serious AE[a]	15 (**14.4%**)		5 (**10.0%**)	
Immune-related AE[b]	39 (**37.5%**)	11 (**10.6%**)	18 (**36%**)	7 (**14.0%**)

mRNA-4157 (V940) + pembrolizumab (n = 104), n (%)	Grade 1	Grade 2	Grade 3	Grade 4/5	Total (n = 104)
Patients with mRNA-4157 (V940)–related AE[c]	**35 (33.7%)**	**51 (49.0%)**	**12 (11.5%)**	**0**	**98 (94.2%)**
Fatigue	40 (38.5%)	18 (17.3%)	5 (4.8%)	0	63 (60.6%)
Injection site pain	37 (35.6%)	22 (21.2%)	0	0	59 (56.7%)
Chills	48 (46.2%)	3 (2.9%)	0	0	51 (49.0%)
Pyrexia	34 (32.7%)	15 (14.4%)	1 (1.0%)	0	50 (48.1%)
Headache	20 (19.2%)	13 (12.5%)	0	0	33 (31.7%)
Injection site erythema	29 (27.9%)	4 (3.8%)	0	0	33 (31.7%)
Influenza-like illness	21 (20.2%)	10 (9.6%)	0	0	31 (29.8%)
Nausea	23 (22.1%)	3 (2.9%)	0	0	26 (25.0%)
Myalgia	16 (15.4%)	5 (4.8%)	1 (1.0%)	0	22 (21.2%)

Safety analyses were conducted in the safety population, which was defined as all randomly assigned patients who received ≥ 1 dose of treatment. Grading per National Cancer Institute Common Terminology Criteria for Adverse Events version 5.0. [a]Serious AEs were not evaluated by toxicity grade; [b]Based on established list of pembrolizumab immune-related AEs (CMQ Pembrolizumab AEOSI); [c]mRNA-4157 (V940)–related AEs included events attributed by the investigator to mRNA-4157 (V940) alone as well as events attributed to both mRNA-4157 (V940) and pembrolizumab. AE, adverse event; AEOSI, adverse event of special interest; CMQ, customized MedDRA queries.

2024 ASCO ANNUAL MEETING #ASCO24

PRESENTED BY: Jeffrey S. Weber, MD, PhD

ASCO AMERICAN SOCIETY OF CLINICAL ONCOLOGY
KNOWLEDGE CONQUERS CANCER

mRNA-4157/V940 in combination with KEYTRUDA was well tolerated without potentiation of immune-related adverse events compared to KEYTRUDA alone

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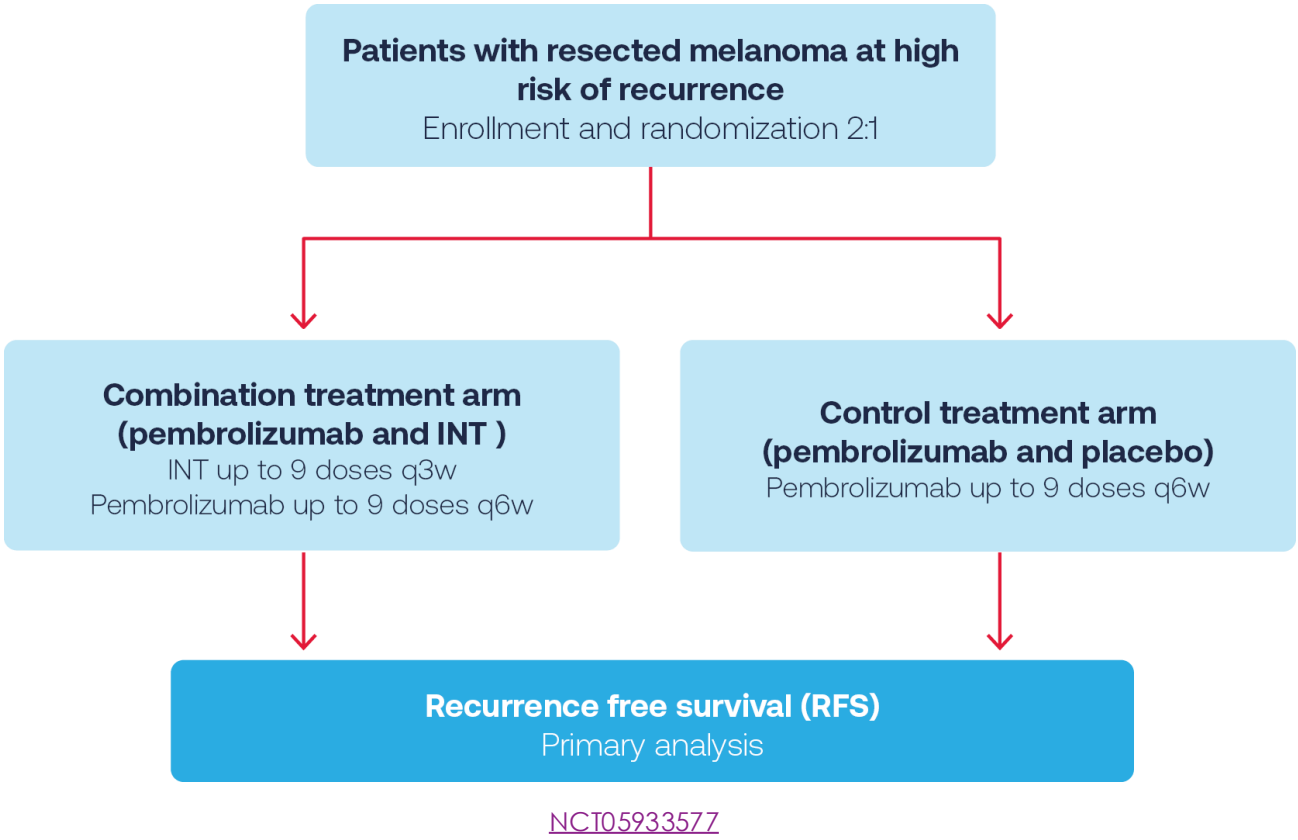
Adjuvant melanoma Phase 3 (mRNA-4157 / V940) trial design

Primary endpoint is recurrence free survival compared to KEYTRUDA



Randomized, double-blind placebo controlled, mRNA-4157 + pembrolizumab (KEYTRUDA®) vs. placebo + pembrolizumab (2:1) (INTerpath-001)

Resected melanoma patients: stage IIB or IIC, III, IV

Primary endpoint: recurrence free survival (RFS)

Secondary endpoints: Distant Metastasis-Free Survival (DMFS), Overall-Survival (OS)

Number of participants: ~1,089

Phase 3 trial is fully enrolled

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Development program

Intismeran autogene
mRNA-4157/V940

In collaboration with Merck

- **Adjuvant melanoma:** Phase 3 study fully enrolled
- **NSCLC:** Enrolling two adjuvant Phase 3 studies for those with and without prior neoadjuvant treatment
- **Adjuvant high-risk muscle invasive bladder cancer:** Enrolling two cohorts: randomized Phase 2 in adjuvant MIBC and single-arm cohort in perioperative MIBC
- **Adjuvant renal cell carcinoma**: Randomized Phase 2 study fully enrolled
- **High-risk non-muscle invasive bladder cancer (HR NMIBC):** Randomized Phase 2 study enrolling
- **First-line metastatic melanoma:** Randomized Phase 2 study enrolling

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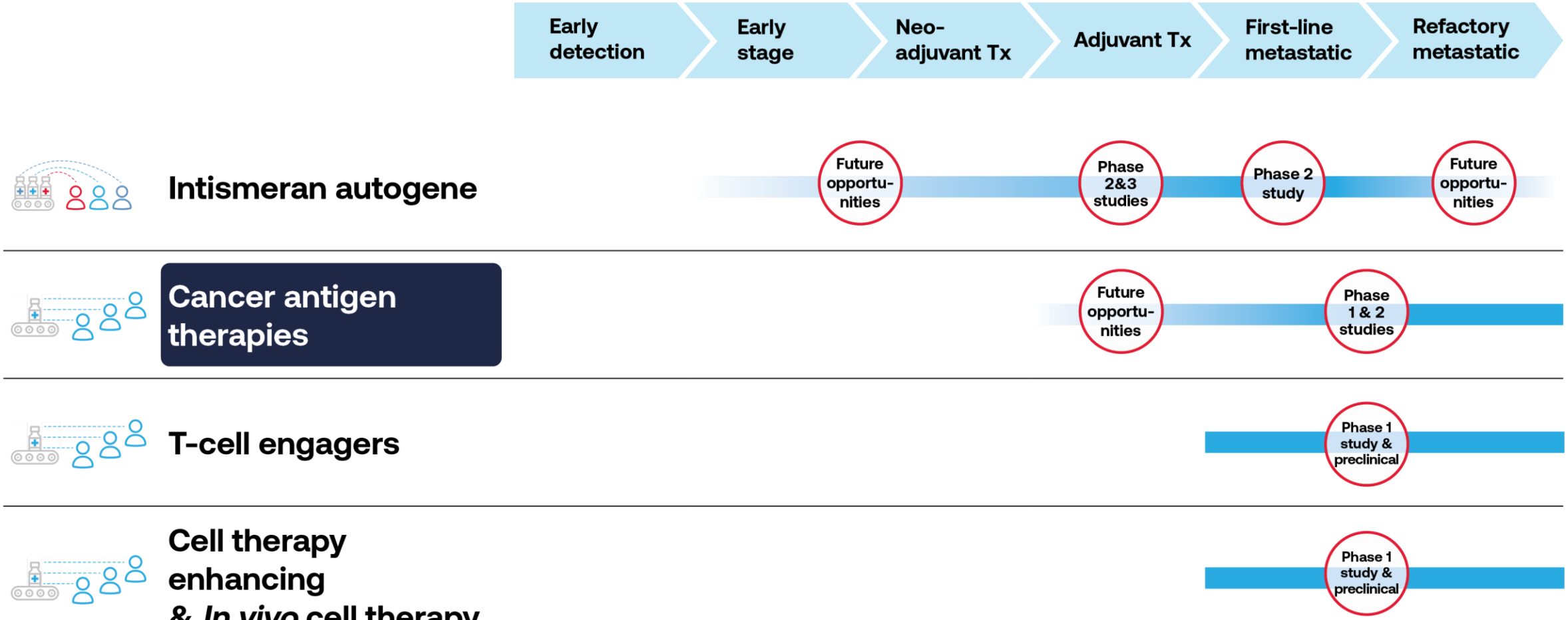
Advancing a vision to treat patients across all stages of cancer



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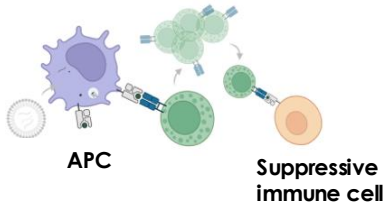
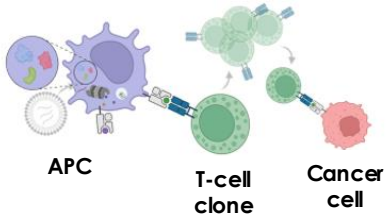
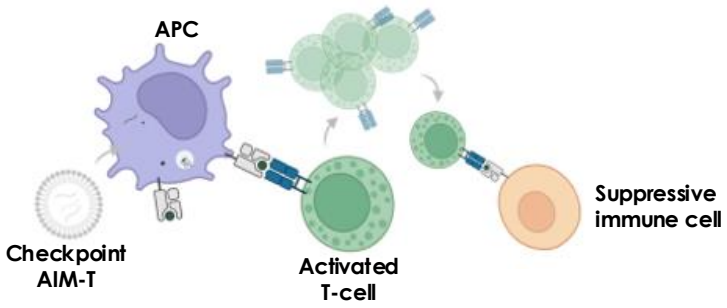
Off-the-shelf cancer antigen therapies

Cancer antigen therapies
Off-the-shelf therapies targeting shared antigens

Therapies	Development phase
 **mRNA-4359** Targets immunosuppressive cells and mechanisms	mRNA-4359 in Phase 2
 **Tumor-targeted antigen therapy** Targets tumor-specific and tumor-associated antigens shared across patients	mRNA-4106 in Phase 1

mRNA-4359 is ongoing in Phase 1/2 study; now enrolling Phase 2 with additional indications planned

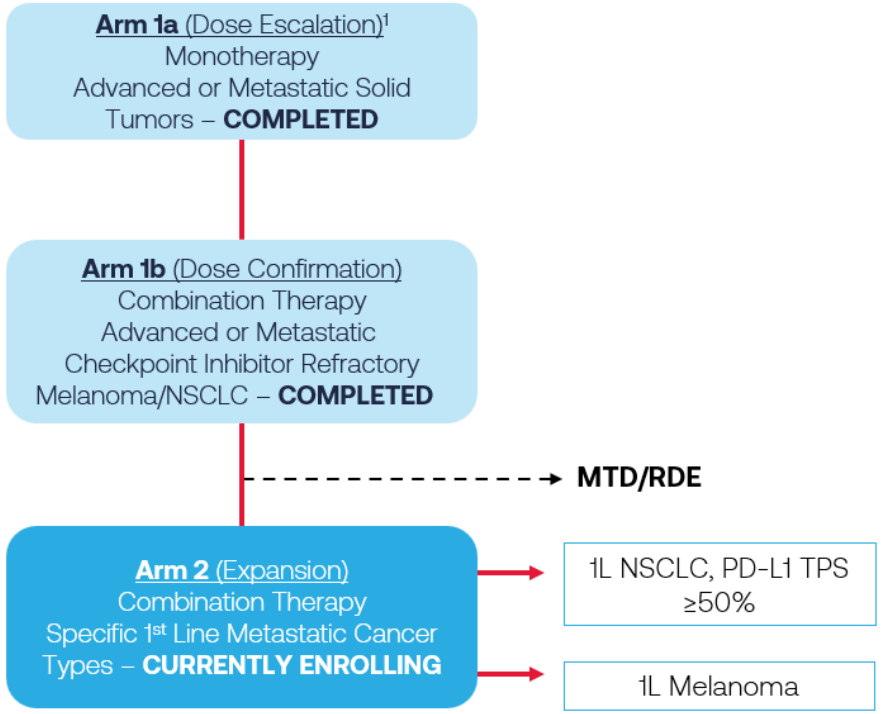
mRNA-4359



Harnessing T-cells with off-the-shelf cancer antigen therapies

- Encodes for PD-L1 and IDO
- Targets both immunosuppressive cells and cancer cells
- Applicable to many different cancer types

Study design and key objectives



- **Safety and tolerability** of mRNA-4359 alone and in combination with pembrolizumab
- **Antitumor activity** of mRNA-4359 alone and in combination with pembrolizumab (ORR, DCR, DOR, PFS)
- **T-cell profile changes** (peripheral and tumor) after treatment of mRNA-4359 alone or in combination with pembrolizumab

Note: for more information about mRNA-4359, see the Checkpoint AIM-T Program Pack

1. Link to 2024 ESMO presentation

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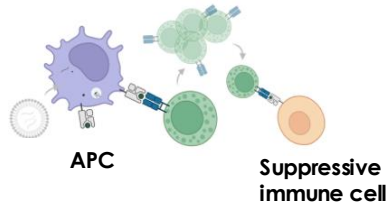
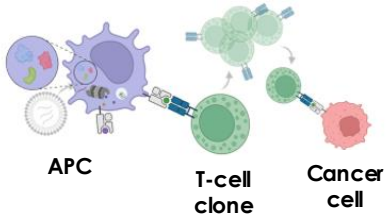
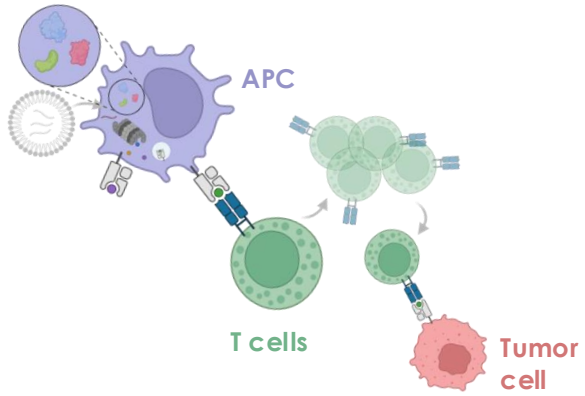
Off-the-shelf cancer antigen therapies

Cancer antigen therapies
Off-the-shelf therapies targeting shared antigens

Therapies	Development phase
 **mRNA-4359** Targets immunosuppressive cells and mechanisms	mRNA-4359 in Phase 2
 **Tumor-targeted antigen therapy** Targets tumor-specific and tumor-associated antigens shared across patients	mRNA-4106 in Phase 1

mRNA-4106 is a cancer antigen therapy offering broad coverage across tumor types

mRNA-4106



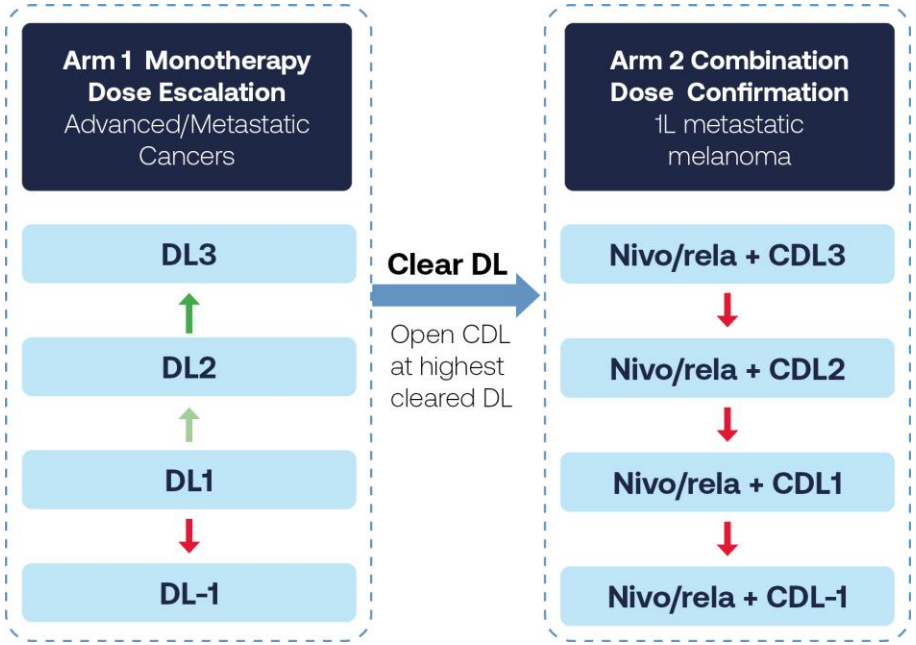
Harnessing T-cells with off-the-shelf cancer antigen therapies

- Encodes for multiple tumor targets
- Designed to broaden coverage across and within patients
- Applicable to multiple cancer types

Study design and key objectives

Primary Objective: safety/tolerability as monotherapy and in combination with checkpoint inhibitor therapy

Exploratory Objectives: Anti-tumor activity



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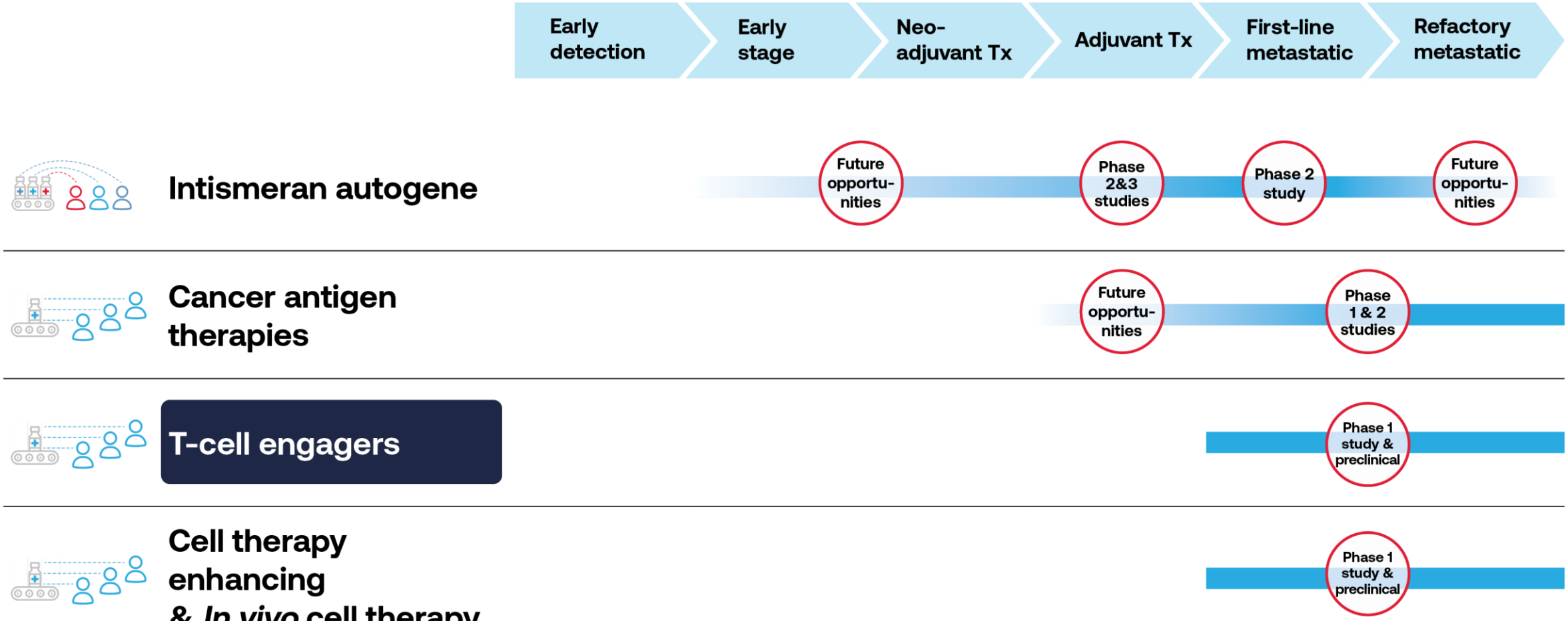
Advancing a vision to treat patients across all stages of cancer



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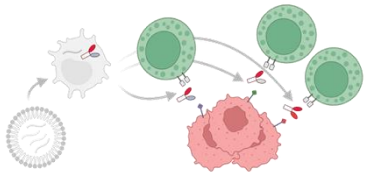
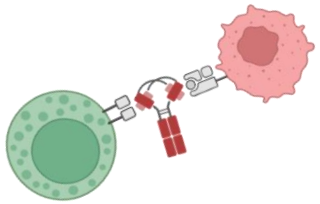
T-cell engagers: Two approaches with secreted T-cell engaging antibodies to target surface and intracellular proteins

		Therapies	Development phase
Surface Antigen T-Cell Engagers		• Targets T-cell CD3 and tumor associated antigens (TAAs) that are present on the surface of the tumor • Multiplexes to overcome antigen escape, well-established resistance mechanism • Ability to multiplex other T-cell targets for co-stimulation	mRNA-2808 in Phase 1
Intracellular Antigen T-Cell Engagers		• Targets T-cell CD3 and tumor-specific antigens that are processed and displayed as peptides by MHC • Ability to multiplex to provide more coverage to intracellular proteins	Preclinical

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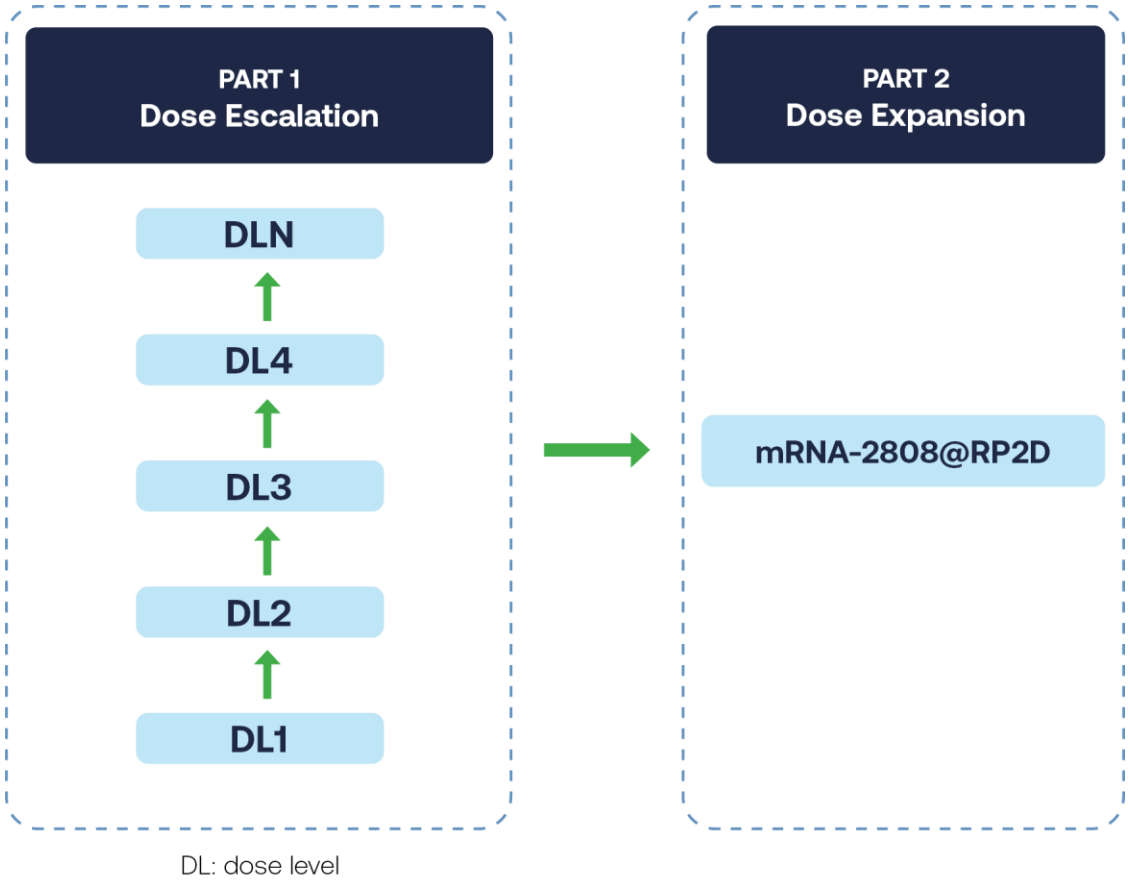
mRNA-2808 Phase 1/2 study design

Design
Phase 1/2 open label dose-escalation study

Patients
Relapsed refractory multiple myeloma, triple class exposed with evidence of progression on or within 60 days of their last line of therapy

Primary endpoint
Safety, number of participants with dose limiting toxicity, number of participants with treatment-emergent adverse events

Secondary endpoints
Pharmacokinetics, pharmacodynamics, overall response rate by International Myeloma Working Group (IMWG), duration of response, progression-free survival



DL: dose level

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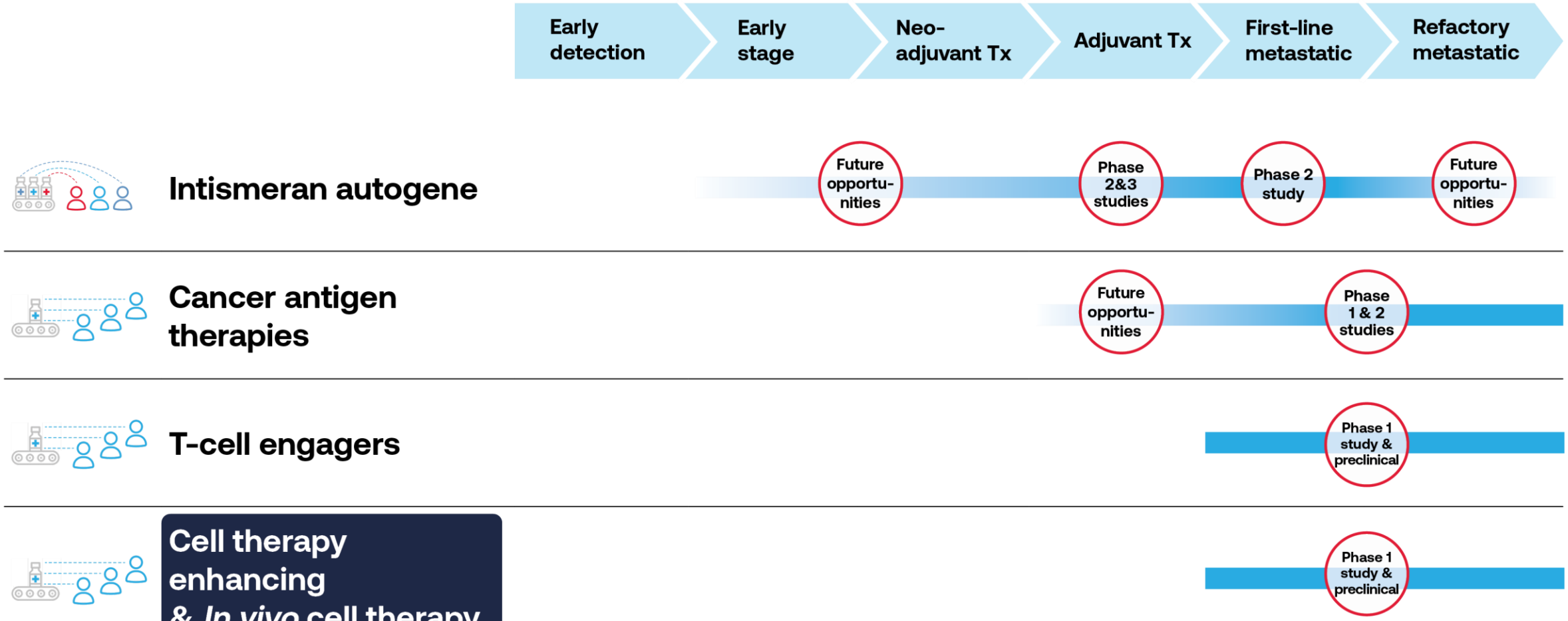

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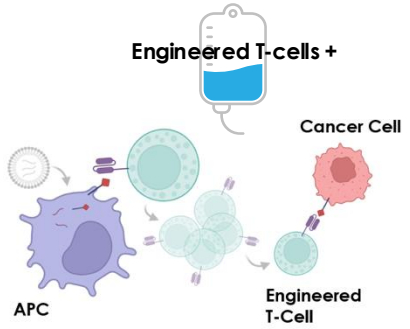
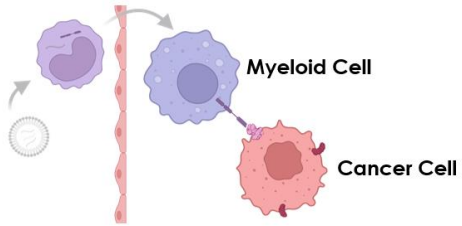
Cell therapy enhancing: lead candidate entering clinic

Cell therapy enhancing & In vivo cell therapy

Therapies	Development phase
 **Cell therapy-enhancing antigen therapy** Encodes for the target of an *ex vivo* cell therapy to enhance the persistence and efficacy of the cell therapy	mRNA-4203: IND open *In combination with Immatics' IMA203*
 **CAR-M or CAR-T** Leverages mRNA-LNP technology to transfect myeloid or T-cells for *in vivo* CAR-M / CAR-T cell therapy	Preclinical

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mRNA-4203 Phase 1 study design

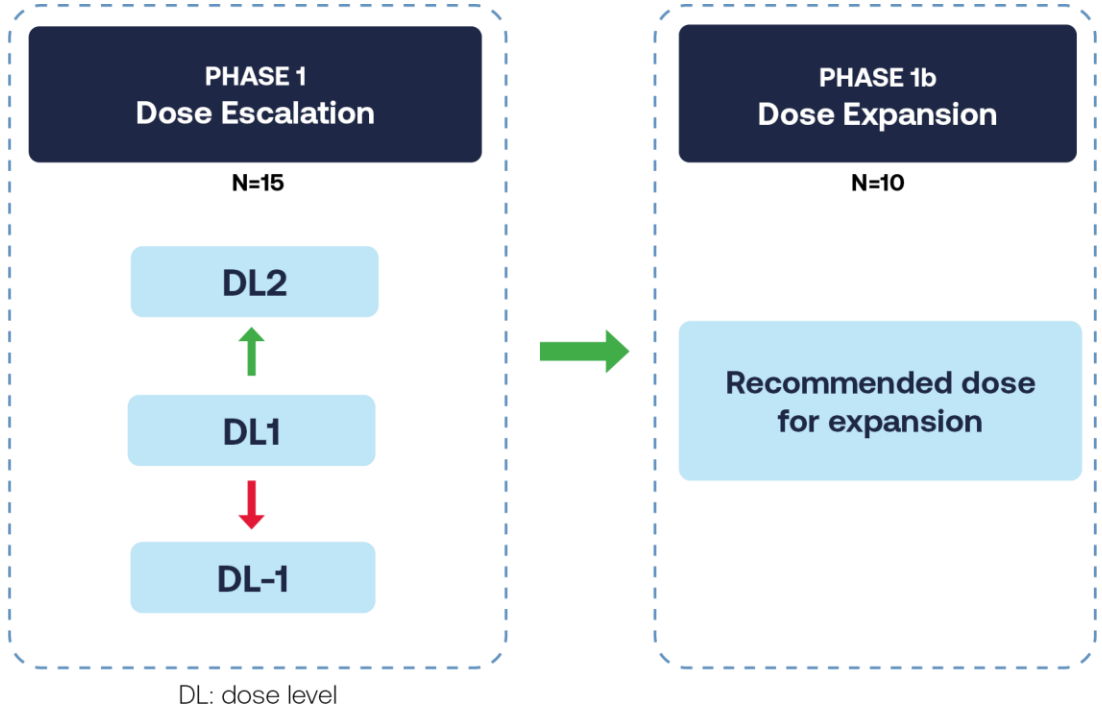
Design
Phase 1, dose escalation

Number of patients dosed
N=15
Patients with previously treated, unresectable or metastatic cutaneous melanoma or synovial sarcoma. All patients will receive IMA203 prior to receiving mRNA-4203.

Primary endpoint
Safety, determine recommended dose expansion

Secondary endpoints
Evaluate anti-tumor activity of IMA203 in combination with mRNA-4203 and evaluate the pharmacokinetics of TCR-engineered T cells in combination with mRNA-4203

Site locations
United States



DL: dose level

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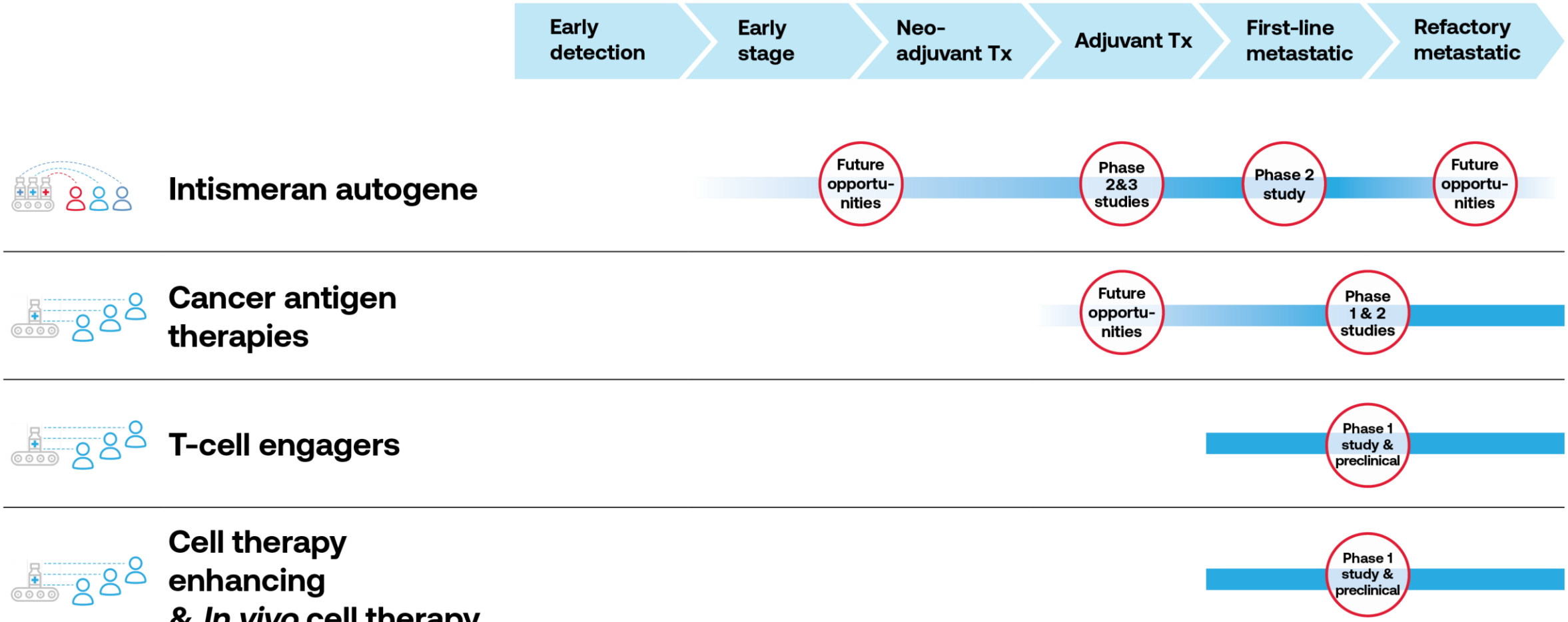

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