August 6, 2026

TUDRIQEV™ (vusolimogene oderparepvec-wtpg) FDA Accelerated Approval Investor Call

Replimune®

Safe Harbor

Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding clinical trials, clinical studies and other clinical work (including the funding therefor, anticipated patient enrollment, safety data, study data, trial outcomes, timing or associated costs, sufficiency of any resulting data), regulatory applications and related submission contents and timelines, the timelines or outcomes related to litigation, including any rehearings or appeals of decisions in any such proceedings, and our ability to execute on our strategic or financial initiatives, our estimates regarding future expenses, capital requirements and needs for additional financing, and potential commercial viability, and potential reimbursement and utilization of TUDRIQEV involve significant risks and uncertainties and actual results could differ materially from those expressed or implied herein. Our ability to maintain TUDRIQEV's accelerated approval and to continue commercialization of TUDRIQEV may be contingent on verification of clinical benefit in a confirmatory trial(s). Other forward looking statements identified by words such as "could," "expects," "intends," "may," "plans," "potential," "should," "will," "would," or similar expressions and the negatives of those terms. Forward-looking statements are not promises or guarantees of future performance and are subject to a variety of risks and uncertainties, many of which are beyond our control, and which could cause actual results to differ materially from those contemplated in such forward-looking statements. These factors include risks related to our limited experience in commercializing products for sale, our ability to successfully verify the clinical benefit of TUDRIQEV in our ongoing confirmatory Phase 3 trial, IGNYTE-3, our ability to meet our product manufacturing goal, the timing and scope of future regulatory approvals, the availability of combination therapies needed to conduct our clinical trials, changes in laws and regulations to which we are subject, competitive pressures, our ability to identify additional product candidates, the impact of political and global macro factors and military conflicts, and other risks as may be detailed from time to time in our Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q and other reports we file with the Securities and Exchange Commission. Our actual results could differ materially from the results described in or implied by such forward-looking statements. Forward-looking statements speak only as of the date hereof, and, except as required by law, we undertake no obligation to update or revise these forward-looking statements.

Agenda

Introduction
- Sushil Patel, PhD, CEO

TUDRIQEV™ U.S. Prescribing Information
- Kostas Xynos, MD, PhD, MBA, Chief Medical Officer

U.S. Launch Plans
- Sushil Patel, PhD, CEO

Value and Milestones
- Emily Hill, CFO

Q&A Session

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FDA Approval Validates RPx Platform

TUDRIQEV is Replimune's First Approved Product Validating the RPx Platform

First Oncolytic Viral Combination Therapy to Drive Immune Activation

TUDRIQEV Delivers Hope for Advanced Melanoma Patients

TUDRIQEV (formerly known as RP1) is Now FDA Approved

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Approved in combination with nivolumab for the treatment of adults with unresectable advanced cutaneous melanoma who experience disease progression with a PD-1 blocking antibody-based regimen

“Too-drih-kev”

This indication is approved under accelerated approval based on objective response rate and duration of response. Continued approval for this indication may be contingent upon verification of clinical benefit in a confirmatory trial.

TUDRIQEV Label Reflects Broad Patient Population

Demonstrated effect in non-injected lesions in combination with nivolumab

Ability to treat superficial, deep and visceral lesions, including lung, liver and other organs

Patients can be retreated based on physician discretion

No requirement for prior BRAF treatment

Overview of TUDRIQEV (vusolimogene oderparepvec-wtpg) U.S. Prescribing Information

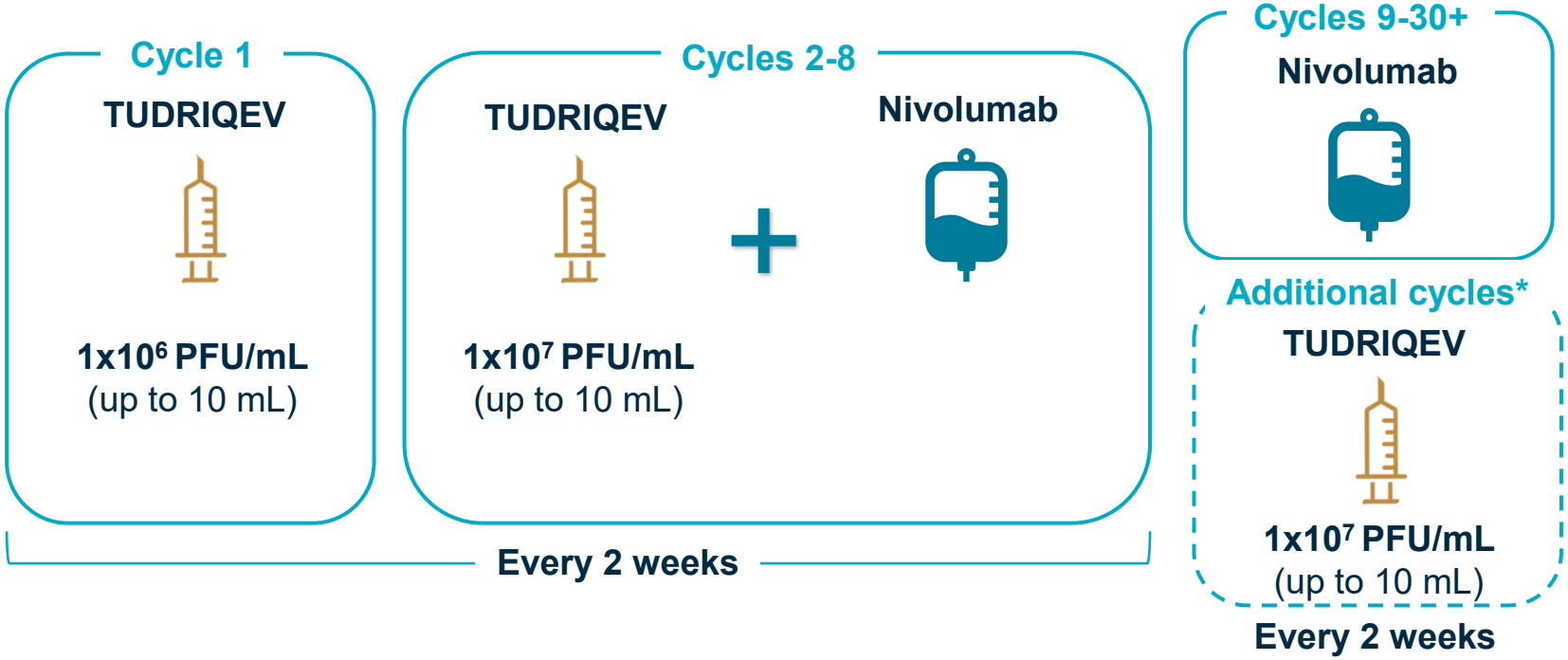
Kostas Xynos, Chief Medical Officer

IGNYTE Study:
Basis of Accelerated Approval of TUDRIQEV

Major efficacy outcome measures

- Safety & tolerability
- ORR
- DOR

Confirmed progression while **on** prior anti-PD-1 therapy



*__Retreatment__: At investigator discretion, patients may be retreated with TUDRIQEV at a concentration of 10^7 PFU/mL every 2 weeks. In IGNYTE, patients were retreated with TUDRIQEV + nivolumab or as a monotherapy if nivolumab was previously stopped due to toxicity related to nivolumab.

References: 1. TUDRIQEV. Prescribing Information. Replimune, Inc.; 2025.

Patient Demographics Reflect Real World Hard-to-Treat Population

Demographics and Disease Characteristics	N=91*
Age, median, years (range)	62 (23, 91)
Stage IV disease	80%
Prior anti-PD1 adjuvant	13%
Tumor PD-L1 expression negative	54%
Lung lesions	45%
Liver lesions	24%
Brain lesions	7%

*140 patients were enrolled in IGNYTE, 91 patients with at least 1 non-injected lesion were included in the efficacy-evaluable population

No overall difference in safety or effectiveness in patients over 65 years of age (41%), including patients over 75 years old (14%)

TUDRIQEV Prescribing Information Efficacy Summary

Objective Response Rate by IRC	N=91*
ORR% (95% CI)[a]	24.2 (15.8, 34.3)

Duration of Response (DoR)[b]	N=91
Median DoR in months (95% CI)[c]	14.1 (10.7, NR)
DoR range, months	3.9 to 34.6+
Patients with DoR ≥ 6 months, n (%)[d]	86.1
Patients with DoR ≥ 12 months, n (%)[d]	54.6

*140 patients were enrolled in IGNYTE, 91 patients with at least 1 non-injected lesion were included in the efficacy-evaluable population

[a] Assessed by blinded central IRC per RECIST 1.1 criteria, [b] The median duration of follow-up for DoR was 29.5 (95% CI: 18.4-33.1) months by Kaplan-Meier method, [c] Estimated by Kaplan-Meier method, [d] Observed duration of response, IRC, independent review committee; NR, not reached

Simple and Practical Dosing and Administration

Highlights from Label

- **Simple dosing calculation for healthcare providers –** 1mL/cm per tumor up to a max of 10mL per dose
- **Tumor selection flexibility** – prioritize the most **rapidly growing and largest** new or existing lesions suitable for injection
- **Scheduling flexibility** – TUDRIQEV + nivolumab do not have to be scheduled on the same day
- Patients can receive **additional doses** at the physician's discretion
- **Ability to inject superficial AND visceral lesions**

TUDRIQEV Administration to Superficial Tumors

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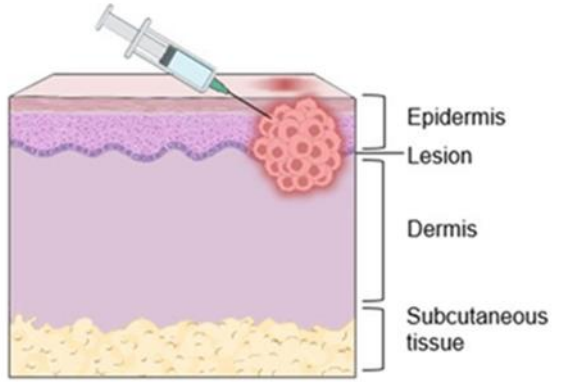
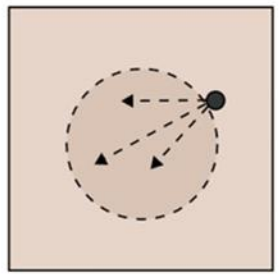
Injection Administration for Nonulcerated Superficial Tumors

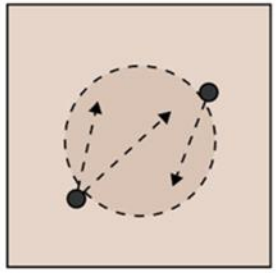


Shallow angle of injection, <45° angle. Entry point can be within the tumor or away from the tumor site

Top-down view of skin

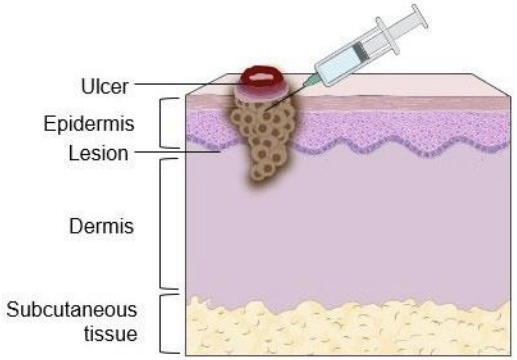


Fanning injection approach



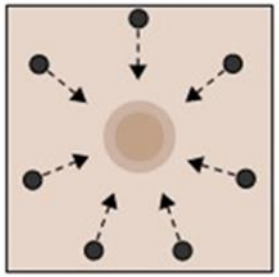
Multiple insertion sites

Injection Administration for Ulcerated Cutaneous Tumors



Shallow angle of injection, <45° angle. Entry point can be within the tumor or away from the tumor site

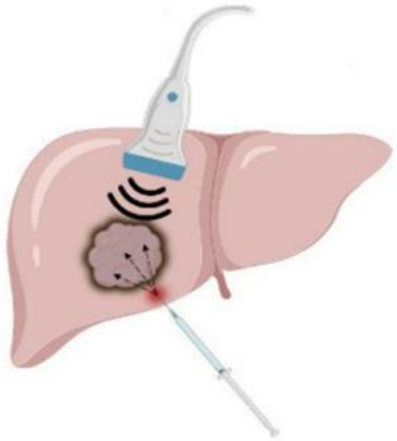
Top-down view of skin

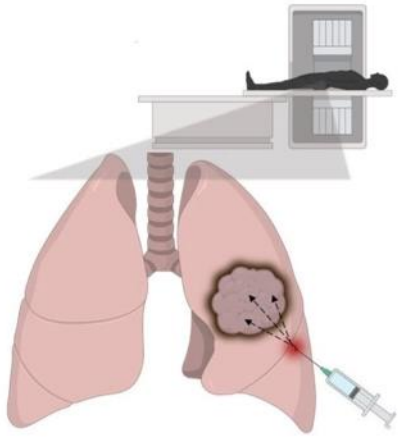


Inject radially, **around** the ulcer into the viable tumor. Number of insertions as appropriate for tumor coverage

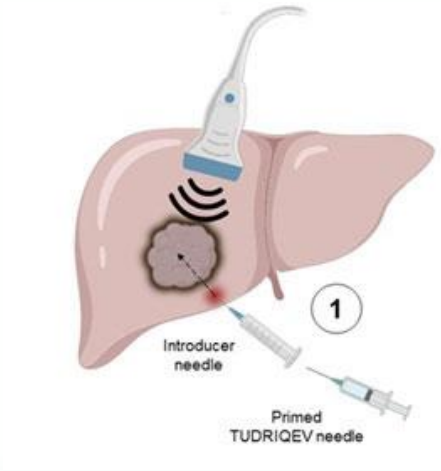
TUDRIQEV Injection for Deep or Visceral Tumors including Lung, Kidney or other Organs

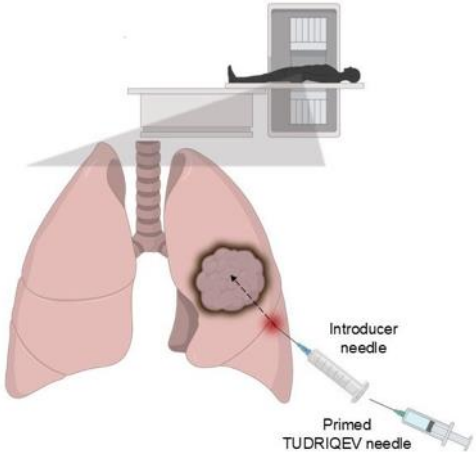
Radial Injection Administration for Deep or Visceral Tumor





Coaxial Injection Administration in Visceral Tumor with Image Guidance





Key TUDRIQEV Safety Highlights

No Contraindications

Warnings & Precautions

- Accidental exposure to TUDRIQEV, herpetic infection or reactivation, injection procedure complications, immune-mediated events

Most common (≥10%) adverse reactions

- Nausea, diarrhea, vomiting, constipation, decreased appetite, abdominal pain, fatigue, pyrexia, chills, injection site reaction, influenza like illness, edema, infections, musculoskeletal pain, arthralgia, headache, dizziness, cough, dyspnea, rash, pruritis, hemorrhage
- No grade 4 or 5 common adverse events observed

Drug interactions

- Antiviral medications may reduce the efficacy of TUDRIQEV.

No reported transmission TUDRIQEV to close contacts

Recommended Biosafety Level 1 (lowest level)

Standard cleaning procedures

Confirmatory IGNYTE-3 Study: Enrollment On Track

IGNYTE-3

Advanced cutaneous melanoma

Progressed on anti-PD1 AND anti-CTLA-4 OR not candidates for anti-CTLA-4

N=~400

Randomized 1:1

RP1 + Nivolumab
(n=200)

Treatment of Physician's Choice (TPC*)
(n=200)

Primary Analysis – OS

Secondary Endpoints - PFS/ORR

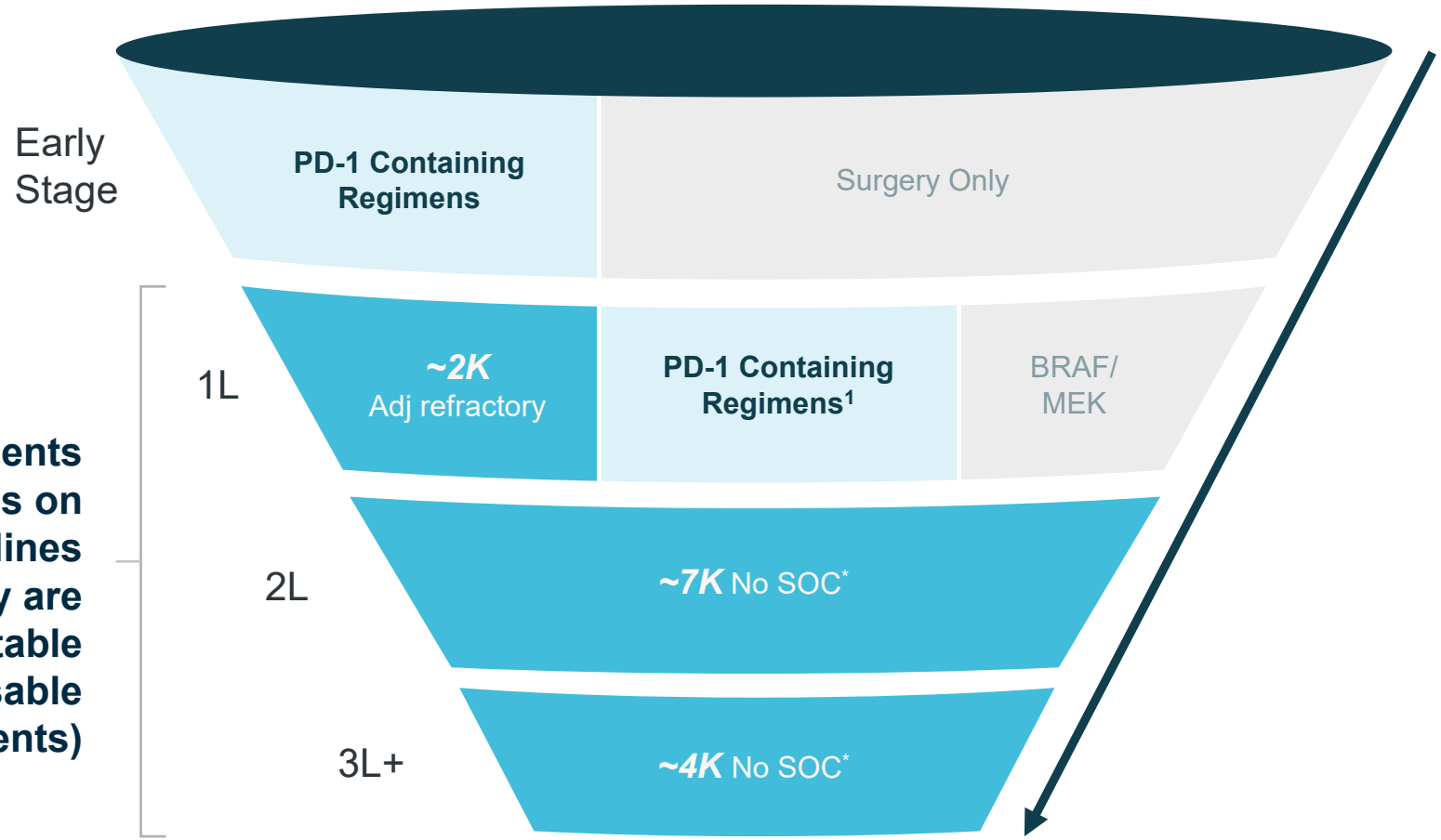
*Nivolumab-Relatlimab (Opdualag), Chemotherapy (DTIC, TMZ, paclitaxel/nab-paclitaxel), Rechallenge with anti-PD1 monotherapy (nivo or pembro); NCT6264180

U.S. Launch Plans for TUDRIQEV

Sushil Patel, PhD, CEO

~10K Addressable Patients Across Lines of Therapy

US Melanoma Patient Treatment Funnel



~80% of patients who progress on PD-1 across lines of therapy are injectable (~10K addressable patients)

RP1 potential patients

1De-novo metastatic or recurrent from surgery. *Therapy is dependent on prior exposure (e.g. PD-1 regimen, BRAF+MEK, TIL, or chemo)
Source: Epi data for year 2030 from CancerMPact® Patient Metrics, Oracle (available from www.cancermpact.com Accessed 15 Oct 2025), with adjustments to future 2L+ treatment rates based on primary market research. Injectability based on primary market research and real-world data analysis.

Positioning TUDRIQEV to be the 1st Choice after PD-1 Progression

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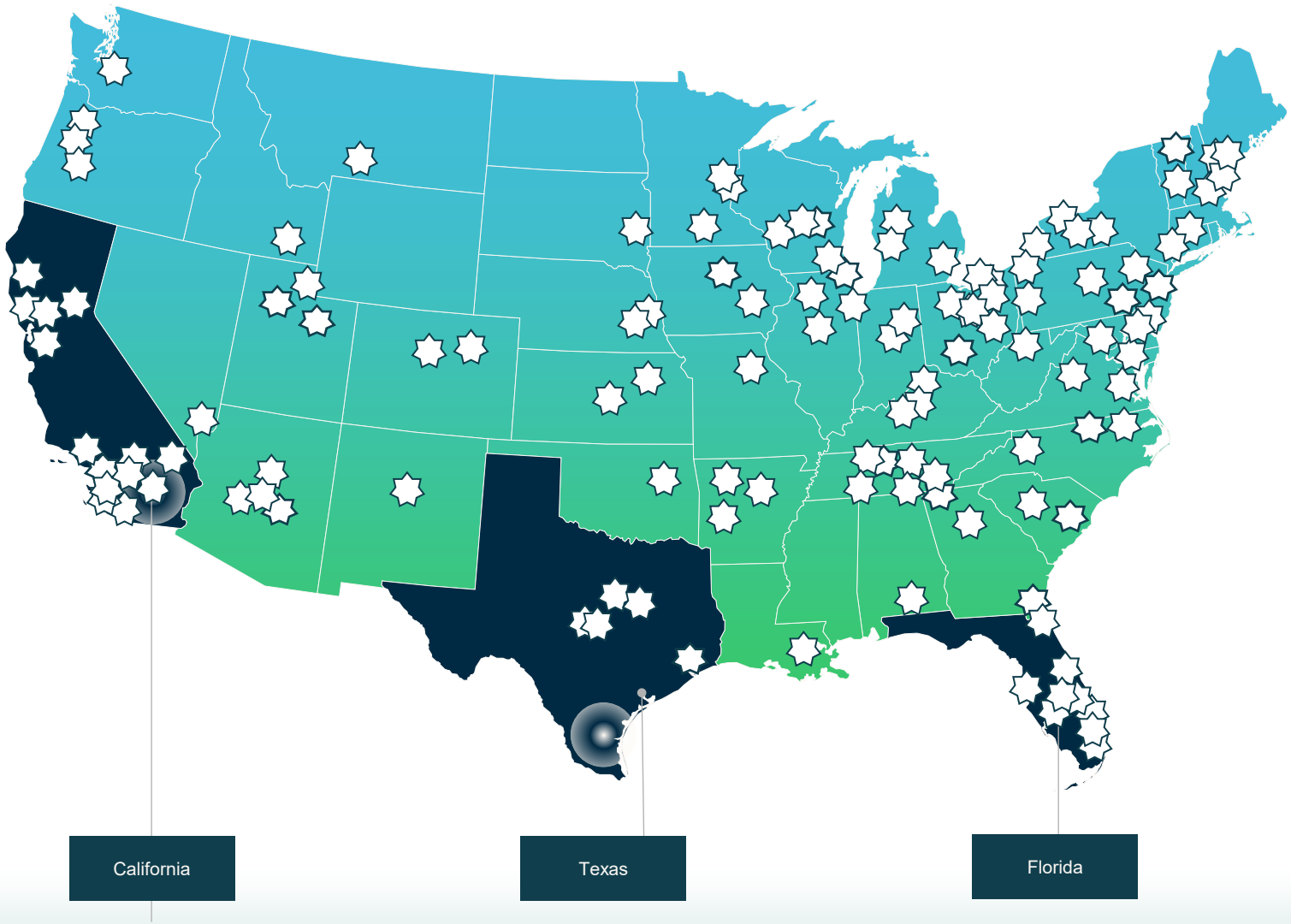
Instill confidence in **TUDRIQEV** to drive targeted and rapid adoption upon 1st PD-1 progression

Ensure a positive **TUDRIQEV** experience while creating a seamless treatment journey

Deliver a meaningful **TUDRIQEV** value proposition supporting access for all customers

Account Profiling Enabled Identification of Physician Champions to Drive Rapid Adoption



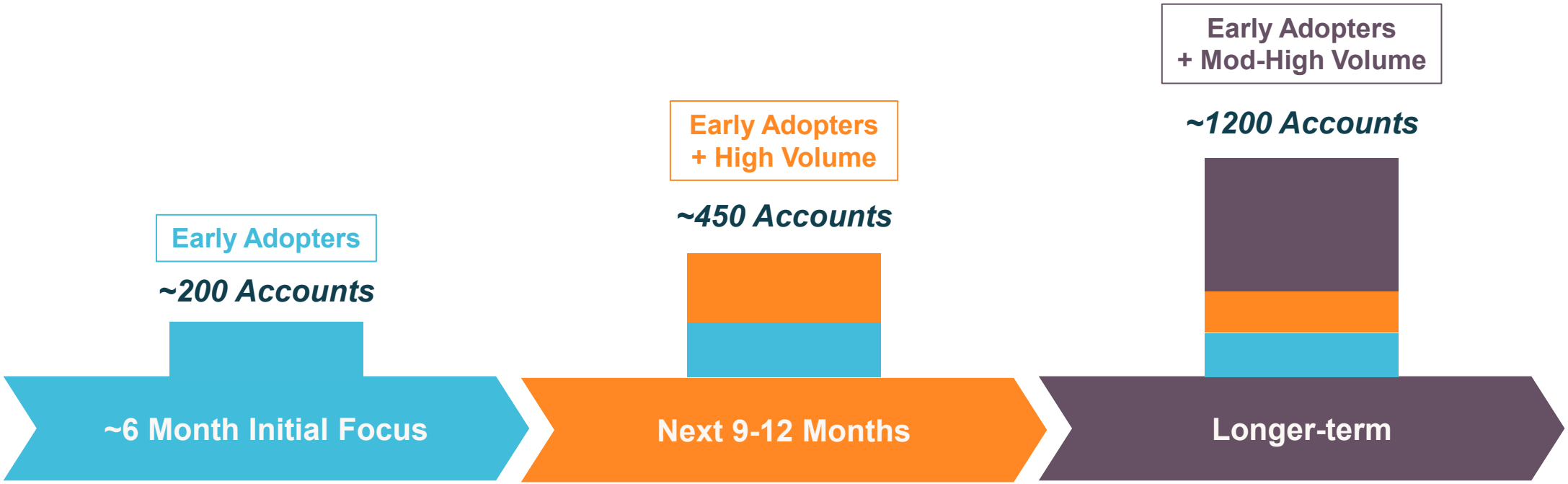
Early Adopter Accounts (n=~200)

94%
Medical Oncology champion identified

87%
IR champion identified

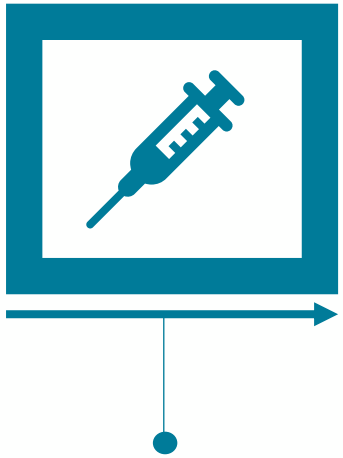
Significant proactive requests for engagement immediately following approval

Targeted Launch for Long-term Success



Today's Reimbursement Model Supports the Patient Treatment Journey

Extensive payer engagement
reaching nearly 80% of covered lives anticipated to expedite formulary review and coverage decisions



Existing procedural codes
to support TUDRIQEV injections by IRs and med oncs

Reimbursement landscape
supports adoption of TUDRIQEV in community and hospital settings

Patient Treatment Journey Aligned with Approved Product Label

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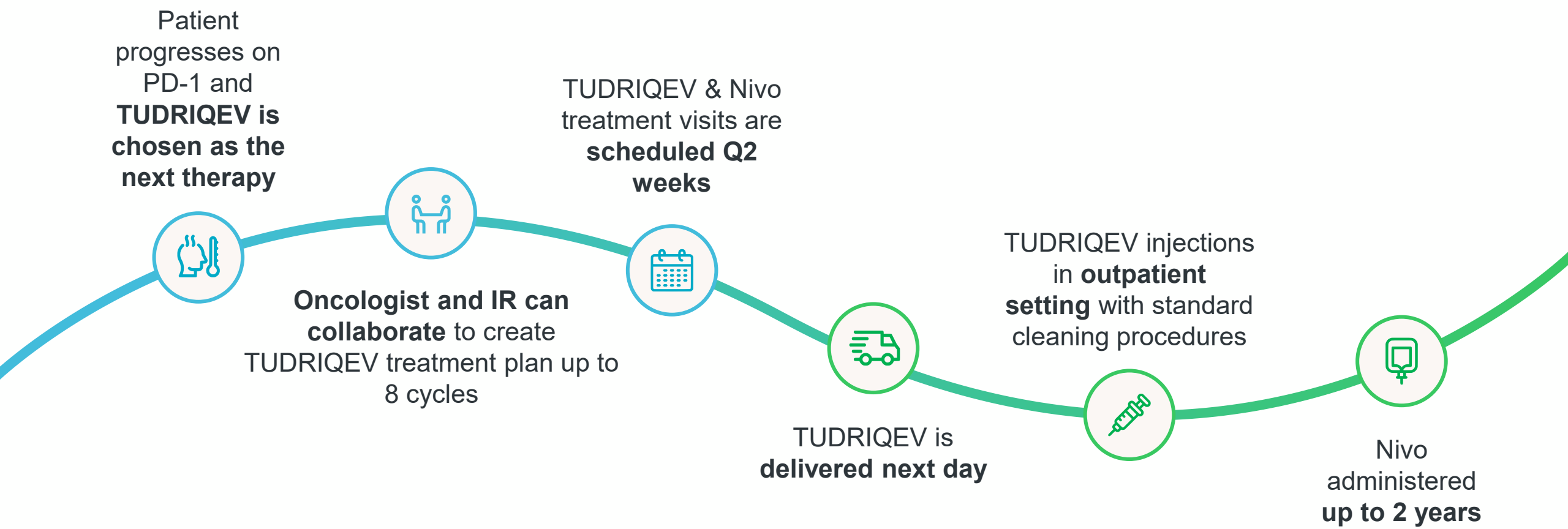
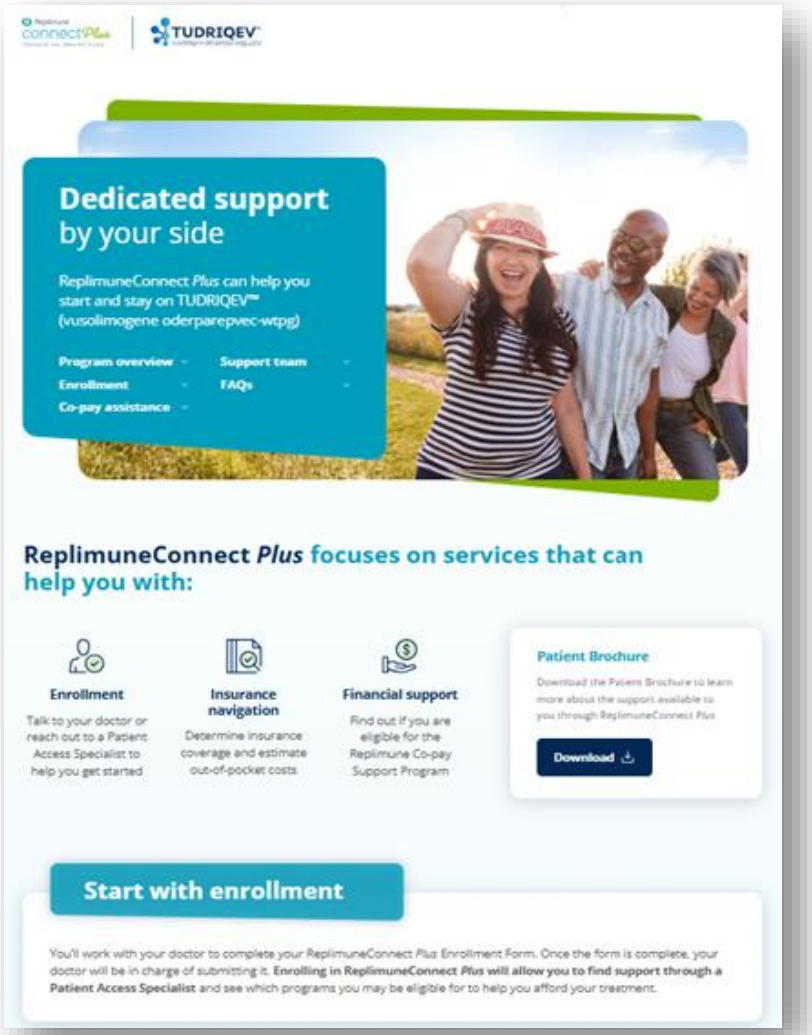
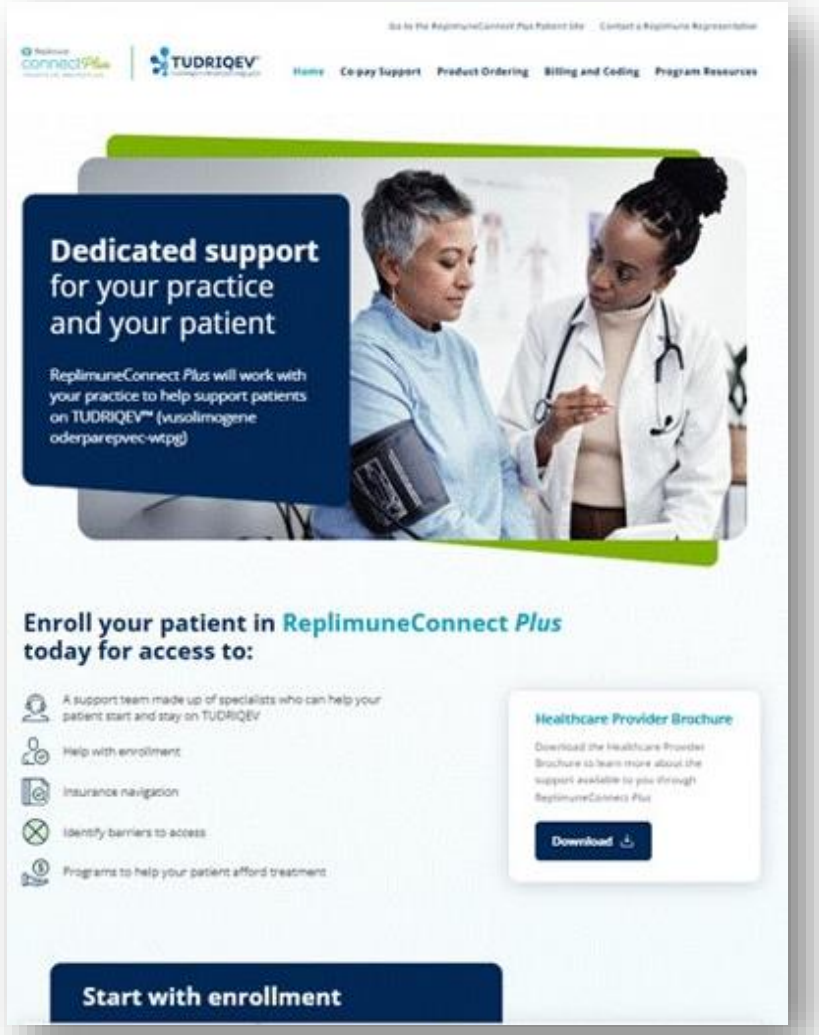


Comprehensive Patient Support Program Planned



Replimune®
connectPlus
Focused on you, dedicated to care.

Patient and provider services in place to support a positive treatment experience



Value and Milestones

Emily Hill, Chief Financial Officer

Pillars to Drive Long-Term Value

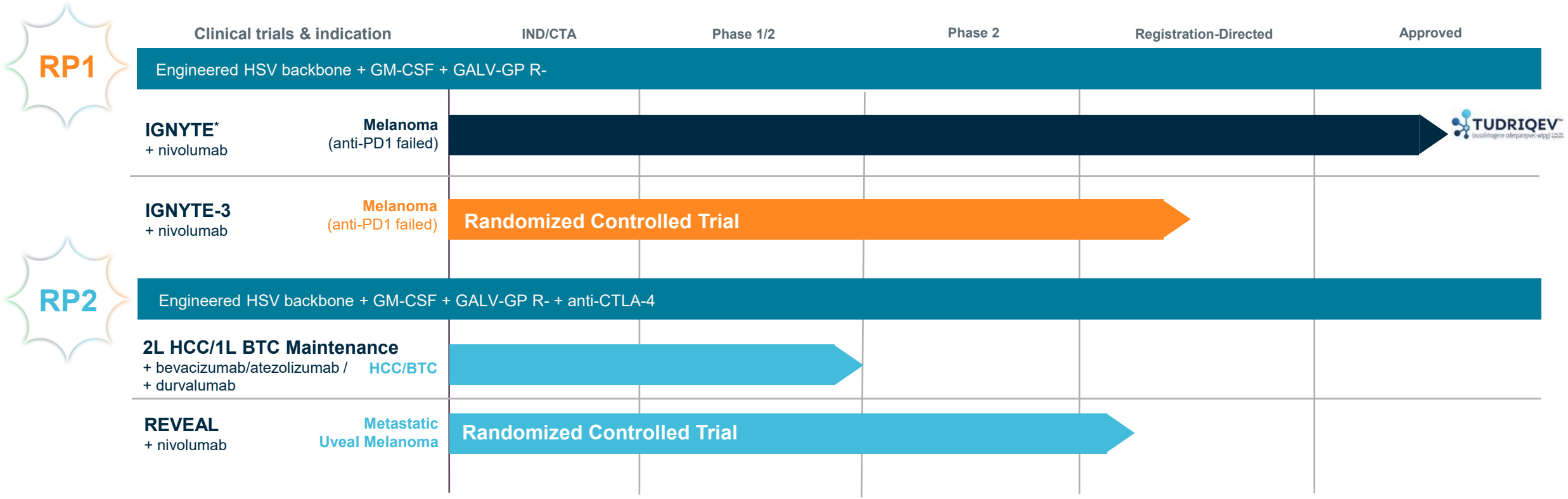
U.S. based 63,000 square foot state-of-the-art manufacturing facility to support global commercial supply

TUDRIQEV **expected to ship in approximately 60 days**

Delivering value and achieving broad coverage

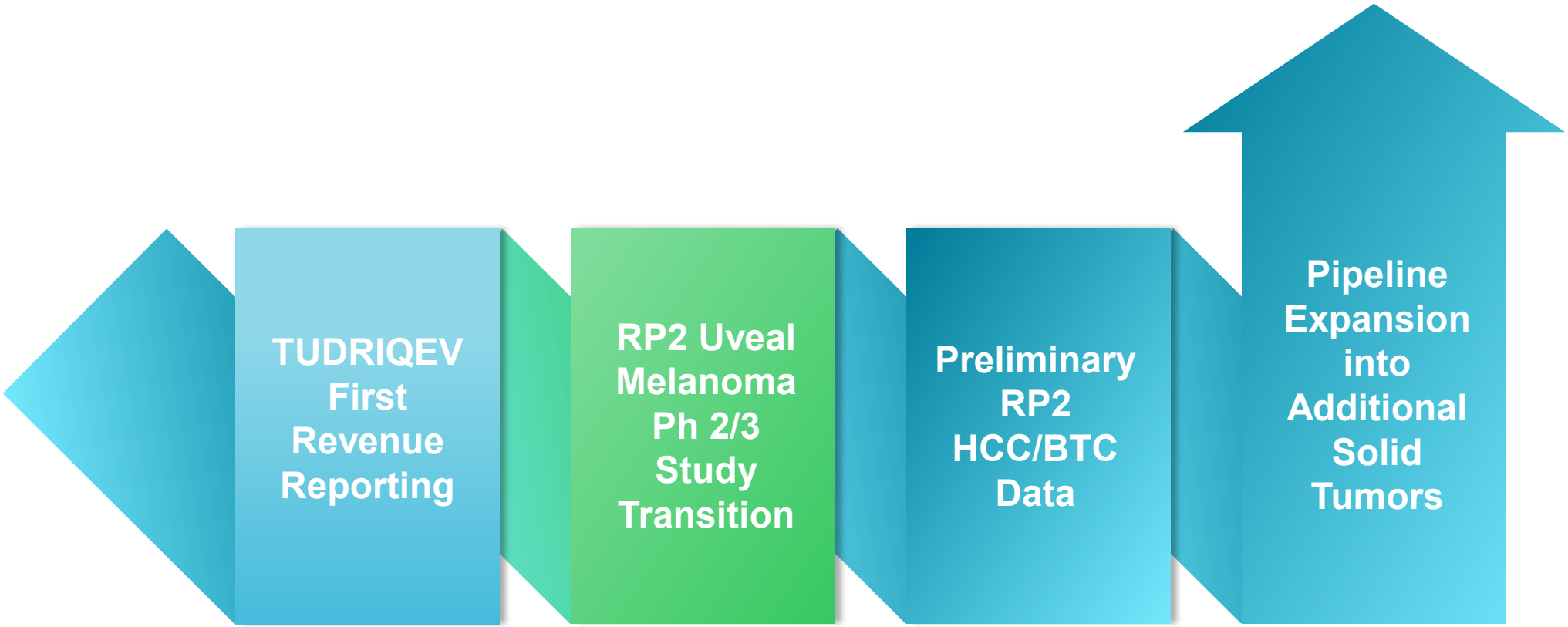
Cost of treatment in line with comparable treatments in advanced melanoma

The Future of the RPx Platform



RPx expansion into additional solid tumors planned

Anticipated Milestones in the Next 6 Months



Q&A

Thank You

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