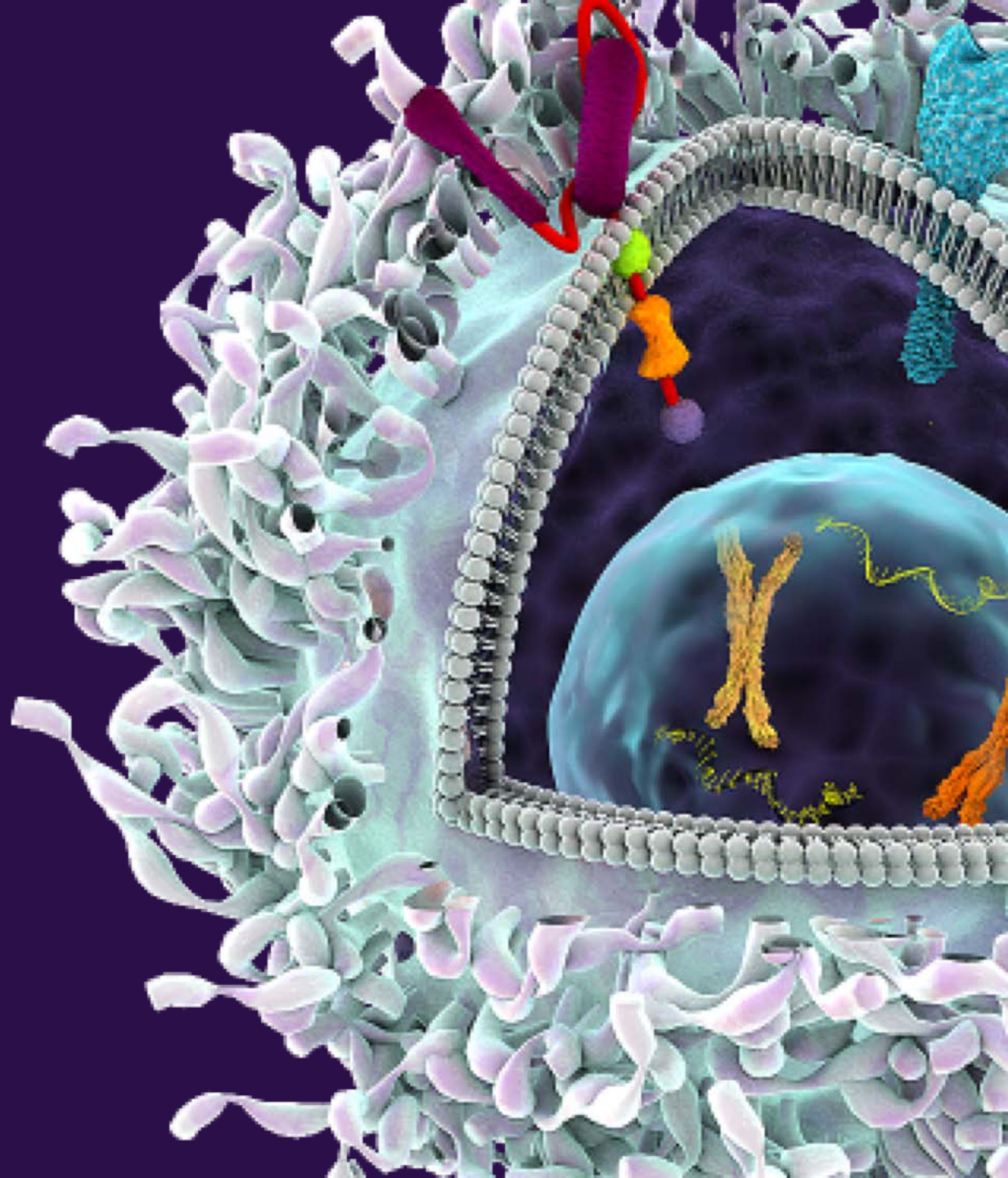
Precigen
4Q-2019 Business Update



2 March 2020

PRECIGEN

Forward-looking Statements

Some of the statements made in this presentation are forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based upon Precigen's current expectations and projections about future events and generally relate to plans, objectives and expectations for the development of Precigen's business and can be identified by forward-looking words such as “may,” “will,” “potential,” “expect,” “believe,” “anticipate,” “intend,” “continue,” “opportunity,” “groundwork,” “poised,” “future,” “update” and similar expressions. Examples of forward-looking statements in this presentation include statements about the timing, pace and progress of preclinical and clinical trials and discovery programs, potential benefits of platforms and product candidates including in comparison to competitive platforms and products, and future plans for the company’s remaining non-healthcare assets. Although management believes that the plans, objectives and results reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties, and actual future results may be materially different from the plans, objectives and expectations expressed in this presentation. These risks and uncertainties include, but are not limited to, (i) ongoing transition efforts following the company’s recent divestment of several assets and businesses, (ii) Precigen’s strategy and overall approach to its business model, its recent efforts to realign its business, and its ability to exercise more control and ownership over the development process and commercialization path; (iii) the ability to successfully enter new markets or develop additional products, including the expected timing and results of investigational studies and preclinical and clinical trials, whether with its collaborators or independently; (iv) the ability to successfully enter into optimal strategic relationships with its subsidiaries and operating companies that it may form in the future; (v) the ability to hold or generate significant operating capital, including through partnering, asset sales and operating cost reductions; (vi) actual or anticipated variations in operating results; (vii) actual or anticipated fluctuations in competitors’ or collaborators’ operating results or changes in their respective growth rates; (viii) cash position; (ix) market conditions in the company's industry; (x) the volatility of Precigen’s stock price; (xi) the ability, and the ability of collaborators, to protect Precigen’s intellectual property and other proprietary rights and technologies; (xii) the ability, and the ability of collaborators, to adapt to changes in laws or regulations and policies; (xiii) outcomes of pending and future litigation; (xiv) the rate and degree of market acceptance of any products developed by Precigen, its subsidiaries, collaborations or joint ventures; (xv) the ability to retain and recruit key personnel; (xvi) expectations related to the use of proceeds from public offerings and other financing efforts; (xvii) estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and (xviii) the challenges inherent in leadership transitions. For a discussion of other risks and uncertainties, and other important factors, any of which could cause actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Precigen’s Annual Report on Form 10-K, as well as discussions of potential risks, uncertainties, and other important factors in Precigen’s subsequent filings with the Securities and Exchange Commission. All information in this presentation is as of the date its cover page, and Precigen undertakes no duty to update this information unless required by law.

All of the pharmaceutical products described in this presentation are investigational new drugs, which are currently undergoing pre-clinical and/or human clinical trial testing. As a result, none of them have had their safety or efficacy established or are approved by the U.S. Food and Drug Administration or any other regulatory agency.

Precigen: Setting the Stage for Success

4Q18
- Ziopharm licensing agreement
- Merck KGaA agreement
- PRGN-3006 IND clearance

1Q19
- PRGN-3005 IND clearance

2Q19
- Intrexon Health formed
- Manufacturing facility opened
- First patient dosed for PRGN-3006

3Q19
- First patient dosed for PRGN-3005

4Q19
- Announced completion of dosing of first cohorts and manufacturing success for PRGN-3005 and PRGN-3006

1Q20
- Intrexon renamed Precigen
- Dr. Sabzevari named President & CEO
- Several Non-HC assets divested
- Balance sheet strengthened

Adhering to Operating Principles to Deliver Value to All Stakeholders

PRECIGEN'S VISION FOR PATIENTS

Develop life-saving and cost-conscious therapies utilizing our cutting-edge platform technologies for patients with unmet need

FISCAL STRENGTH

Responsible capital allocation to ensure runway for maximum value creation

ACTIVE PORTFOLIO MANAGEMENT

Continuous evaluation of portfolio based on data to make rapid go/no go decisions

RAPID EXECUTION

Focus on rapid execution of priority programs with the highest probability of success

STRATEGIC PARTNERSHIPS

Seek strategic partnerships to maximize value generation

Our Non-Healthcare Asset Strategy

Trans Ova Genetics

Continue to evaluate strategic alternatives

Increase operational efficiencies

Contribute cash to Precigen

MBP Titan

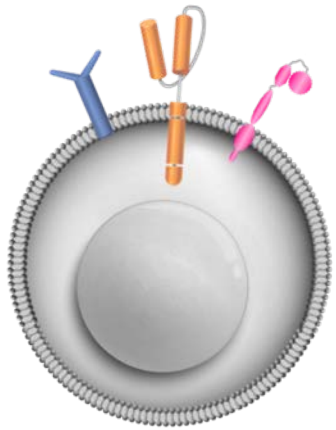
Significantly reduce cash requirement

Increase operational efficiencies

Support partnering discussions

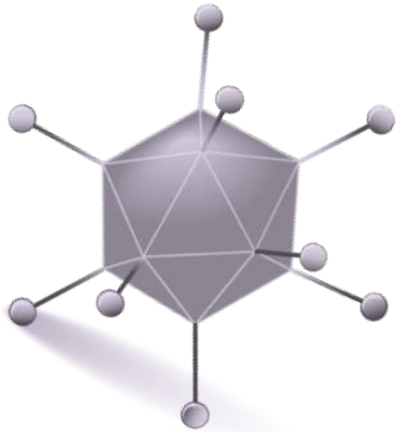
One Precigen: Deploying Novel Approaches to Address Unmet Healthcare Needs

UltraCAR-T



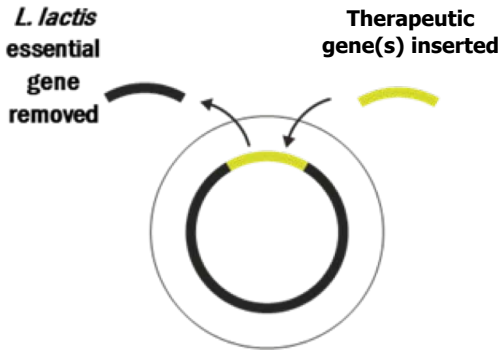
- Non-viral multi-gene delivery
- Non-exhausted, stem-like T cell phenotype
- Higher antigen-specific expansion
- Enhanced *in vivo* persistence
- Ability to deplete with kill switch
- Overnight manufacturing process

AdenoVerse Immunotherapy



- Large payload capacity
- Low seroprevalence in humans
- Ability for repeat administration
- Durable antigen-specific immune response
- Highly productive manufacturing process

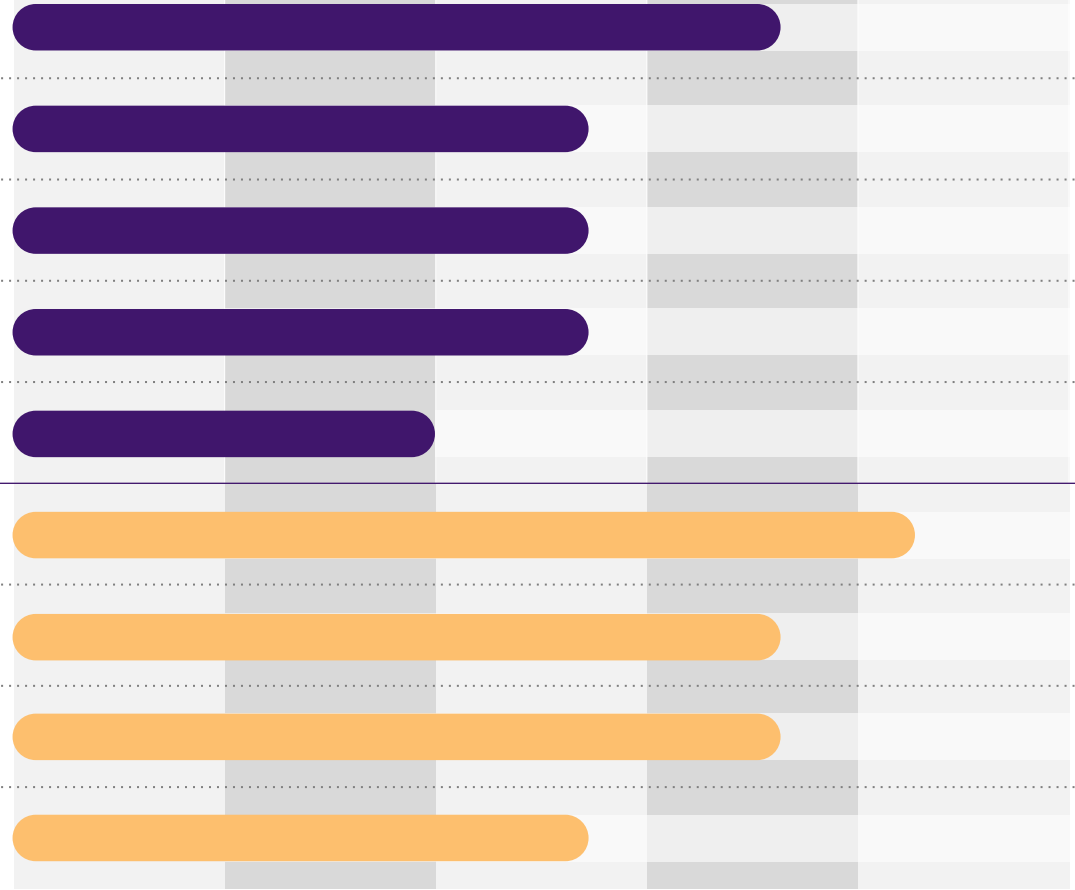
ActoBiotics



- Food-grade bacteria, *L. lactis*
- Long history of safe use in humans
- Easy genetic manipulation
- Cost-effective and scalable manufacturing
- Convenient oral or topical delivery
- Local expression of genes at disease site

Robust Pipeline with Many Milestones to Drive Value

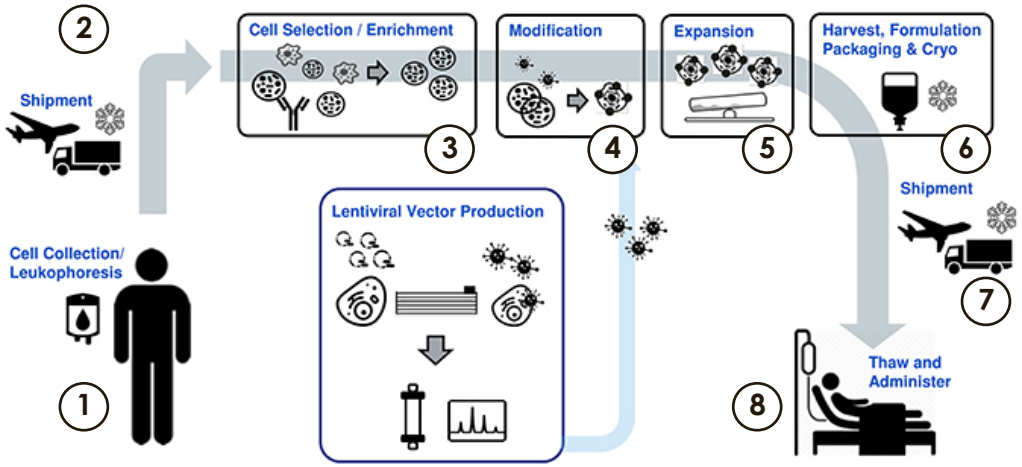
	PRODUCT	PLATFORM	INDICATION	STATUS / MILESTONES	PARTNER
PRECIGEN	**AG019**	ActoBiotics	Type 1 Diabetes	Interim data in 3Q20	
	PRGN-3005	UltraCAR-T	Ovarian Cancer	Initial data in 2H20	
	PRGN-3006	UltraCAR-T	AML, MDS	Initial data in 2H20	
	INXN-4001	Non-viral UltraVector	Heart Failure	Phase 1 data in 2020	
	PRGN-2009	OTS AdenoVerse Immunotherapy	HPV+ Solid Tumors	Initiate Phase 1 in 2020	
PARTNERED	**FCX-007**	Fibroblast Cell Therapy	RDEB	Pivotal Phase 3 initiated	CASTLE CREEK PHARMA
	AG013	ActoBiotics	Oral Mucositis	Phase 2 interim data in 1H20	ORAGENICS
	CGF166	Gene Therapy	Hearing Loss	Phase 1/2 ongoing	NOVARTIS
	FCX-013	Fibroblast Cell Therapy	Localized Scleroderma	Phase 1/2 is enrolling	CASTLE CREEK PHARMA



Our UltraCAR-T™ Platform Promises a More Effective Way to Treat Patients

Conventional CAR-T

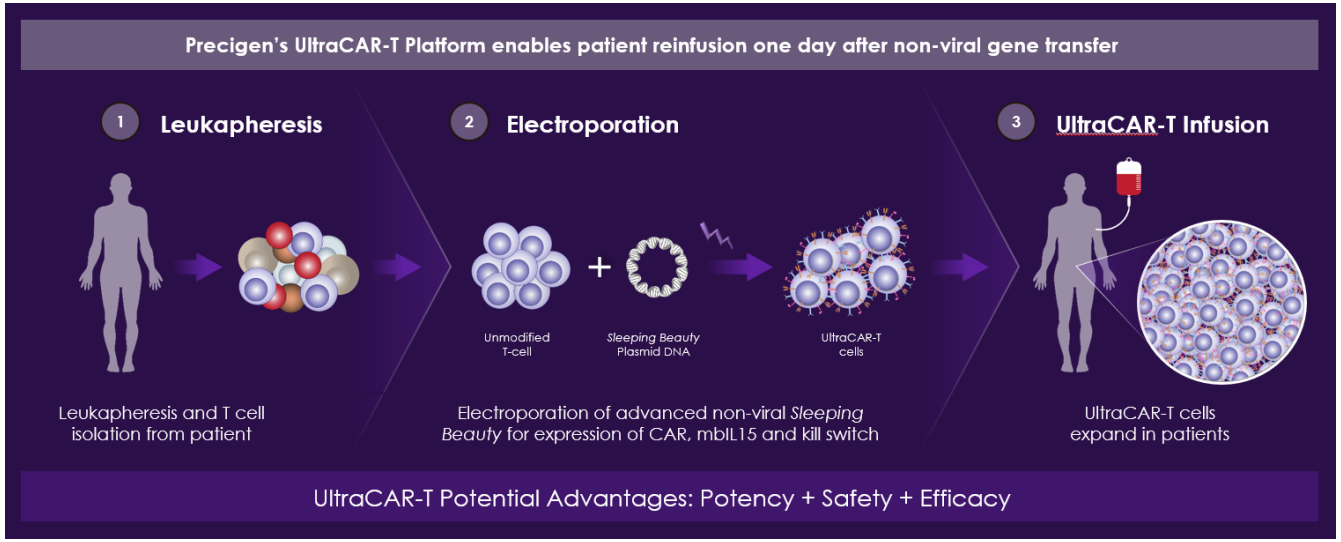
Viral vectors and ex *vivo* expansion result in long delays for patient treatment and high cost



- Reliance on viral vectors
  - Complexity of manufacturing viral vectors
- Long and complex CAR-T cell manufacturing process
  - Long delays for patients
  - High cost of manufacturing
- Exhausted T cell phenotype
- Major challenges in solid tumor treatment

UltraCAR-T™

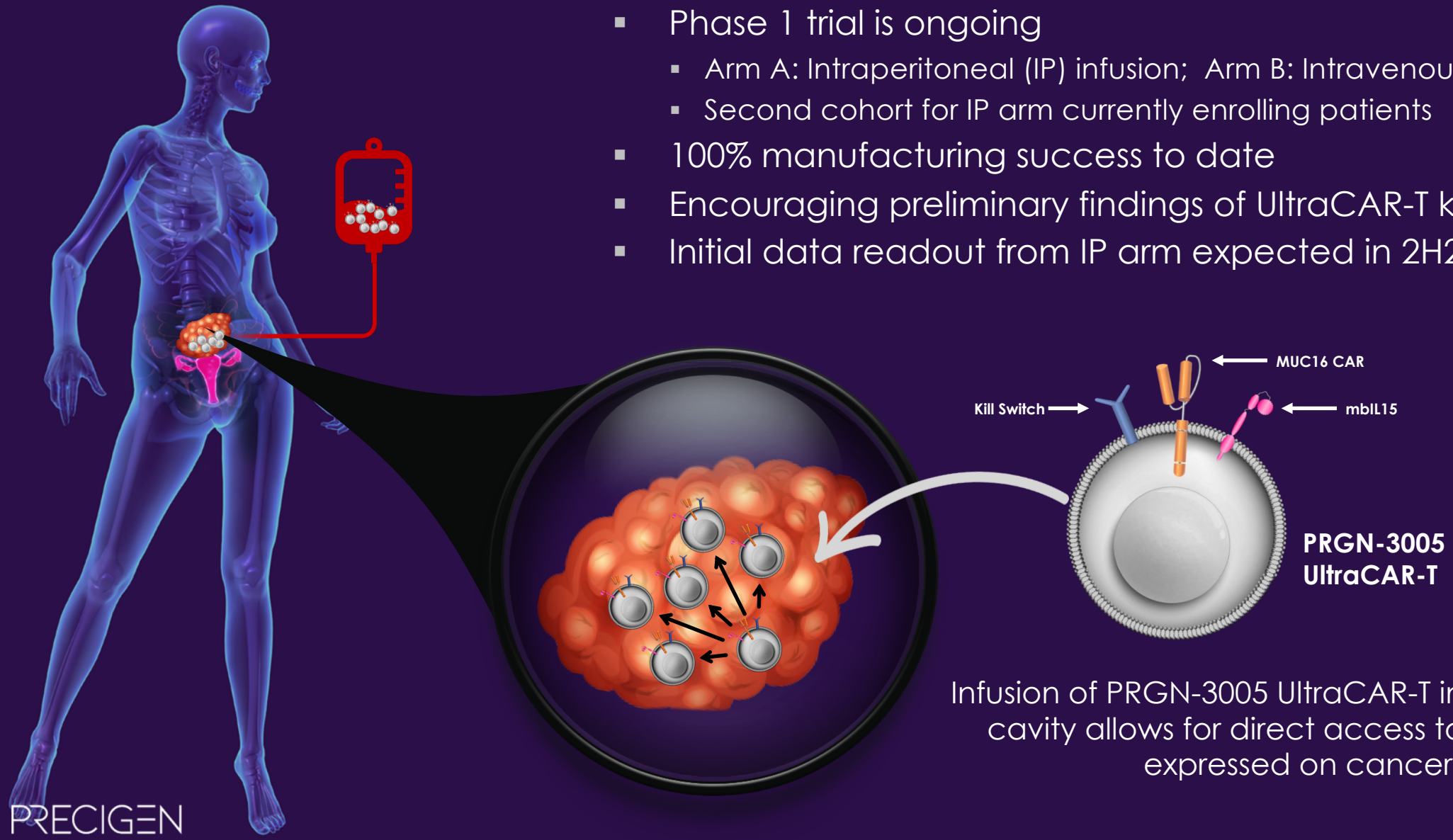
Overnight non-viral gene transfer eliminates long delays for patient treatment and lower manufacturing cost



- Non-viral gene delivery
  - Simplified manufacturing of Plasmid DNA
- Overnight UltraCAR-T manufacturing process
  - No ex *vivo* expansion necessary
  - Reduced manufacturing cost
- Stem-like memory T cell phenotype
- Enhanced potential for expansion and persistence

PRGN-3005, a first-in-class therapy in ovarian cancer

- Phase 1 trial is ongoing
  - Arm A: Intraperitoneal (IP) infusion; Arm B: Intravenous (IV) infusion
  - Second cohort for IP arm currently enrolling patients
- 100% manufacturing success to date
- Encouraging preliminary findings of UltraCAR-T kinetics
- Initial data readout from IP arm expected in 2H20



Infusion of PRGN-3005 UltraCAR-T into intraperitoneal cavity allows for direct access to tumor antigen expressed on cancer cells

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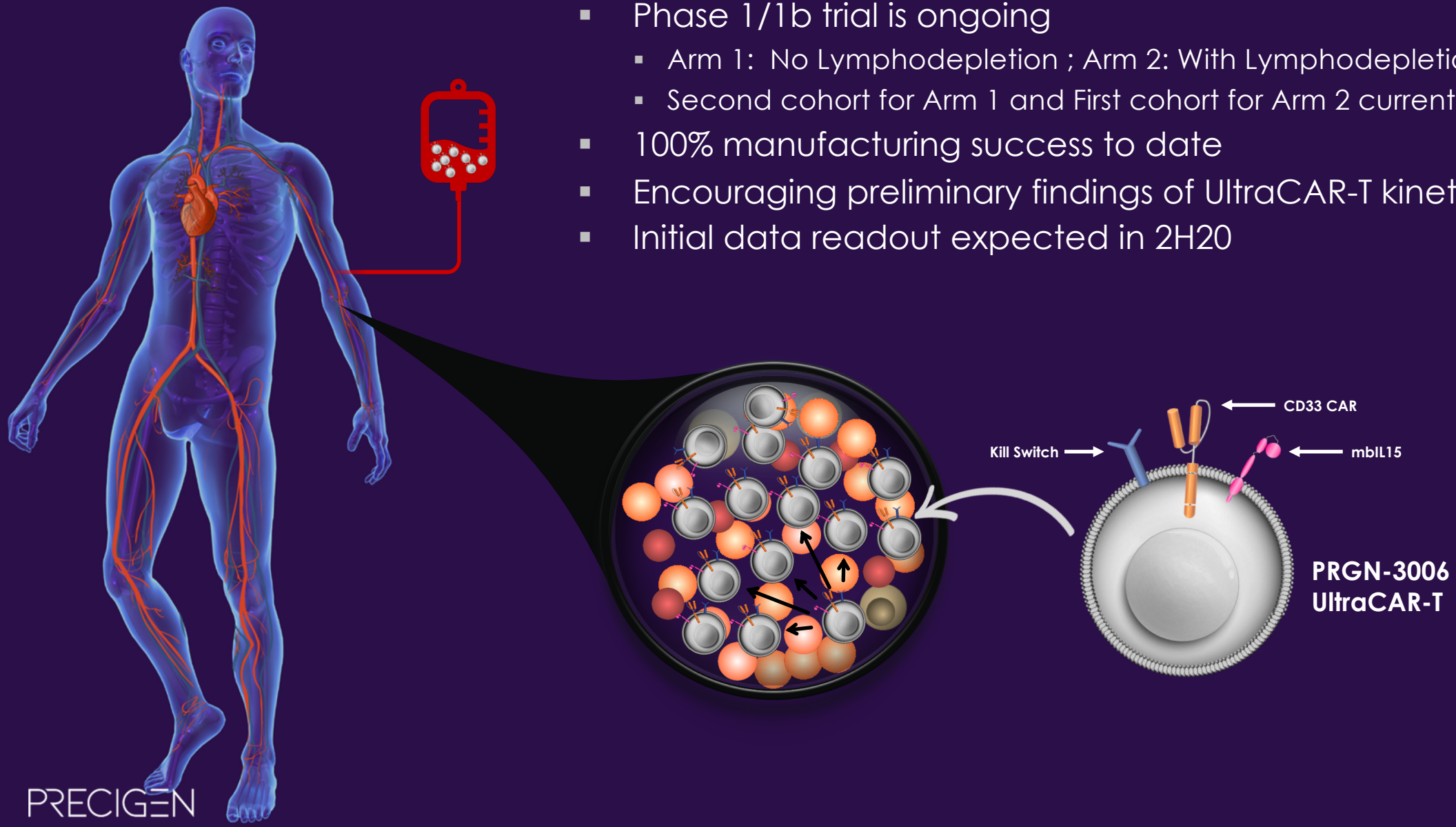
PRGN-3006, a first-in-class therapy in AML

- Phase 1/1b trial is ongoing
  - Arm 1: No Lymphodepletion ; Arm 2: With Lymphodepletion
  - Second cohort for Arm 1 and First cohort for Arm 2 currently enrolling
- 100% manufacturing success to date
- Encouraging preliminary findings of UltraCAR-T kinetics
- Initial data readout expected in 2H20



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Multiple Milestones to Drive Value in 2020 and Beyond

- Initial data from IP arm of PRGN-3005 UltraCAR-T™ Phase 1 trial in Ovarian Cancer
- Initial data from PRGN-3006 UltraCAR-T™ Phase 1 trial in AML and MDS
- Interim data from Phase 2 trial of AG013 in Oral Mucositis
- Interim data from Phase 1b/2a trial of AG019 in Type 1 Diabetes
- Phase 1 data completion of INXN-4001 in Heart Failure patients with LVAD
- Initiate Phase 1 trial of PRGN-2009 off-the-shelf AdenoVerse™ immunotherapy in HPV+ cancers


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ADVANCING MEDICINE WITH PRECISION™