United Therapeutics CORPORATION

United Therapeutics: Enabling Inspiration

AUGUST 2023

STATEMENT

Safe Harbor Statement

This presentation contains forward-looking statements which represent United Therapeutics' expectations or beliefs regarding future events. We caution that such statements involve risks and uncertainties that may cause actual results to differ materially from those in the forward-looking statements. Consequently, all such forward-looking statements are qualified by the cautionary language and risk factors set forth in United Therapeutics' periodic and other reports filed with the SEC.

There can be no assurance that the actual results, events, or developments referenced in such forward-looking statements will occur or be realized. United Therapeutics assumes no obligation to update these forward-looking statements to reflect actual results, changes in assumptions, or changes in factors affecting such forward-looking statements.

This presentation and any related discussions or statements are intended to educate investors about our company. Sometimes that process includes reporting on the progress and results of clinical trials or other developments with respect to our products. This presentation and any related discussions or statements are not intended to promote our products, to suggest that our products are safe and effective for any use other than what is consistent with their FDA-approved labeling, or to provide all available information regarding the products, their risks, or related clinical trial results. Anyone seeking information regarding the use of one of our products should consult the full prescribing information for the product available on our website at www.unither.com.

OUR MISSION

Enabling Inspiration

Left to right: Bina Rothblatt, Martine Rothblatt, Jenesis Rothblatt

United Therapeutics was founded in 1996 with one mission in mind – to save a daughter's life.

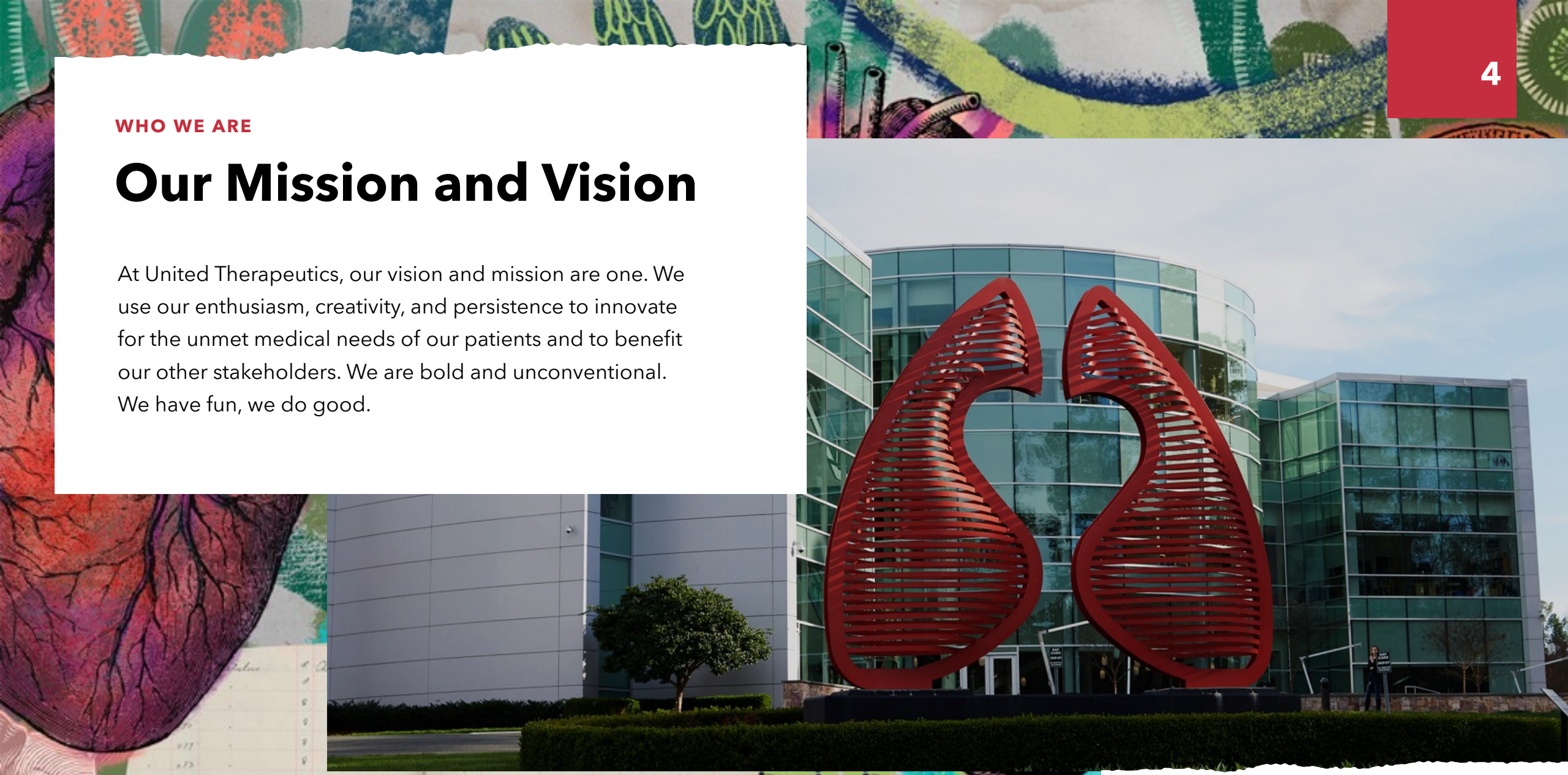
Over 27 years later, we have more than 12,500 patients on our therapies.

In 2021, United Therapeutics became **a Public Benefit Corporation** dedicated to the entrepreneurial and innovative spirit of research in biotechnology and developing novel, life-extending technologies for rare lung diseases, oncology, and organ manufacturing.

WHO WE ARE

Our Mission and Vision

At United Therapeutics, our vision and mission are one. We use our enthusiasm, creativity, and persistence to innovate for the unmet medical needs of our patients and to benefit our other stakeholders. We are bold and unconventional. We have fun, we do good.



How We Operate

HOW WE OPERATE

Our Focus

$4 BILLION RUN RATE BY THE END OF 2025

Our near-term goal is to achieve a **$4 billion** annual revenue run rate by the end of **2025.**

FOUR COMMERCIAL PLATFORMS

FOUR DEVELOPMENT PROGRAMS

FIVE REGISTRATION STUDIES

HOW WE OPERATE | FINANCIAL DISCIPLINE

Disciplined Management to Support Our Mission

Substantial Growth Expected Through PH[1] and IPF[2]

Cash Flow Devoted to Growth and Product Development

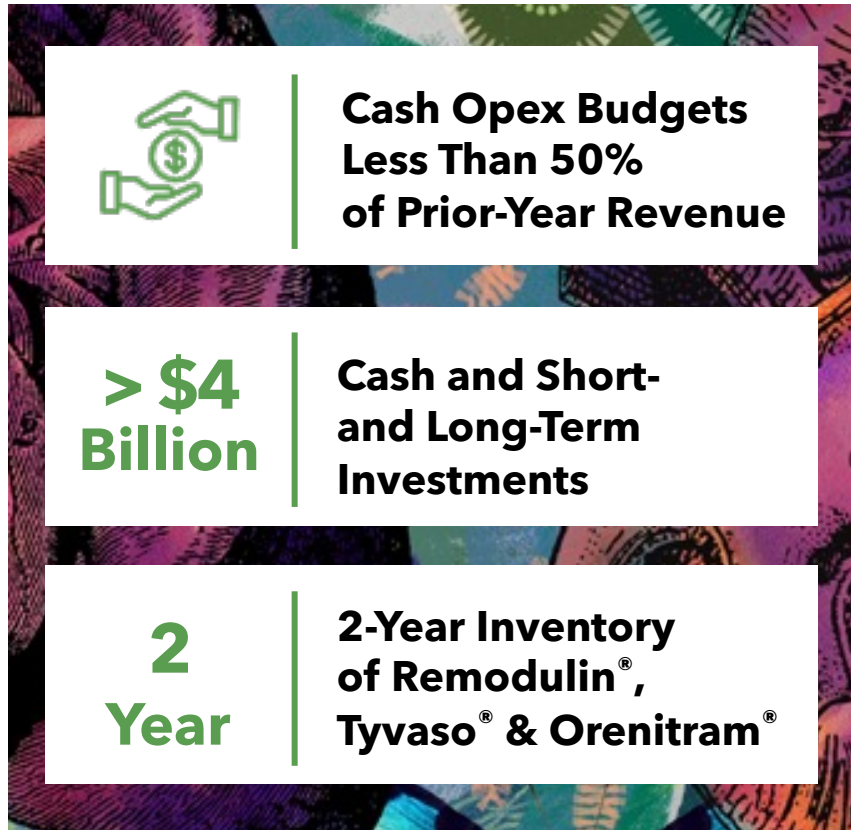
Cash operating expense budgets are less than 50% of prior-year revenue

Strong Balance Sheet

More than $4 billion in cash and short- and long-term investments as of June 30, 2023

Proven Strong Supply Chain

We maintain a two-year inventory of Remodulin®, Tyvaso®, and Orenitram® finished drug product



(1) PH = pulmonary hypertension.
(2) IPF = idiopathic pulmonary fibrosis.

HOW WE OPERATE

Four Commercial Platforms

1. TYVASO® (treprostinil) INHALATION SOLUTION
   TYVASO DPI® (treprostinil) INHALATION POWDER

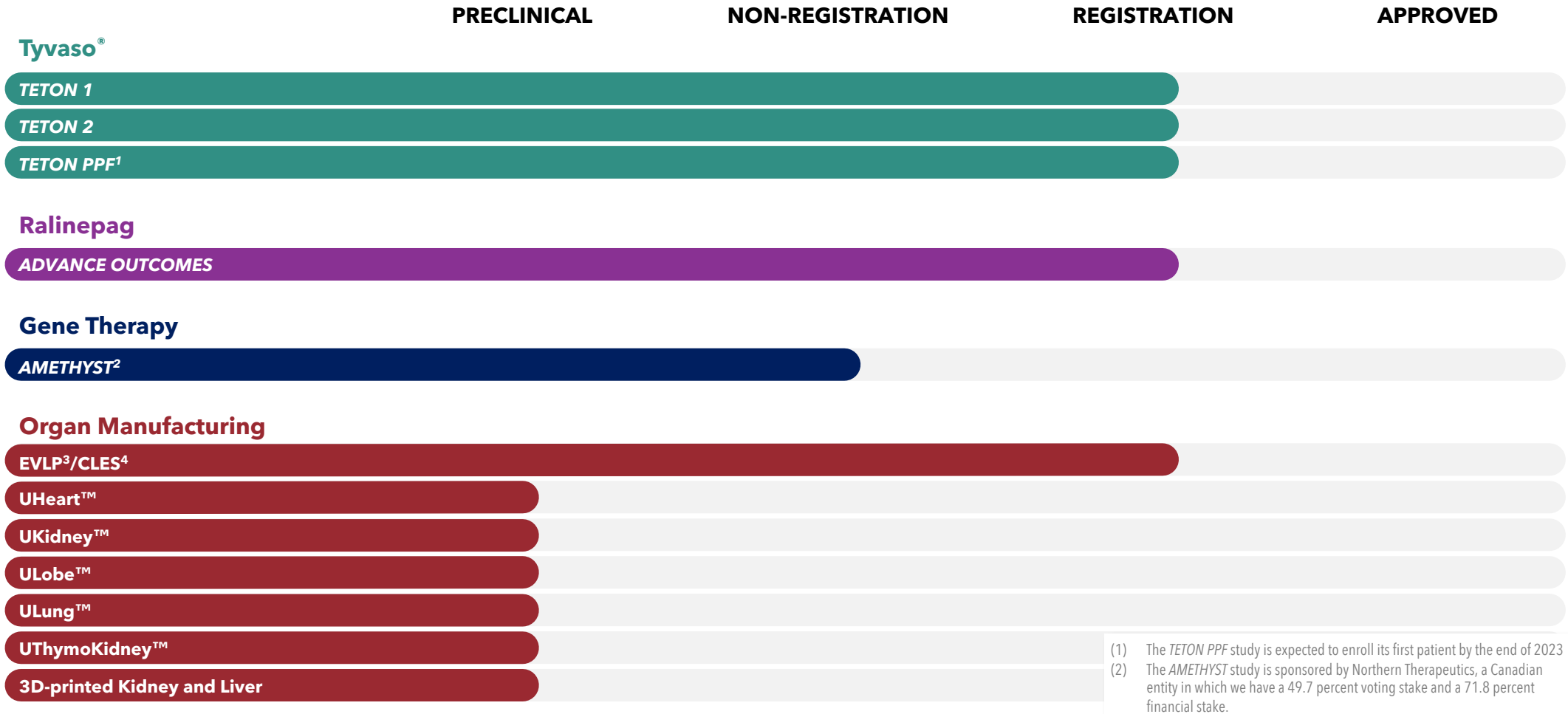
2. orenitram® treprostinil EXTENDED-RELEASE TABLETS

3. REMODULIN® (treprostinil) Injection
   REMUNITY™ PUMP FOR REMODULIN® (treprostinil) Injection

4. Unituxin® (dinutuximab) Injection

HOW WE OPERATE

Four Development Programs



(1) The *TETON PPF* study is expected to enroll its first patient by the end of 2023
(2) The *AMETHYST* study is sponsored by Northern Therapeutics, a Canadian entity in which we have a 49.7 percent voting stake and a 71.8 percent financial stake.
(3) EVLP = *ex-vivo* lung perfusion
(4) CLES = centralized lung evaluation system

HOW WE OPERATE | ESG

Sustainability at Our Core

Patients

Public Benefit Corporation

First **PBC**[1] conversion of a public biotech or pharmaceutical company

Becoming a **PBC** legally aligned our longstanding commitment to serving our patients.

Principles

1. **We are Passionate for Patients**
2. **We Don't Pay to Play**
3. **We Respect Privacy**
4. **We Communicate Ethically and Honestly**
5. **We Do the Right Thing**

People

Commitment to Diversity & Inclusion

Racially/Ethnically Diverse		Women	
36%	All Employees	**51%**	All Employees
29%	Management Team	**46%**	Management Team
25%	Board of Directors	**42%**	Board of Directors

Planet

99% Renewable energy makes up 99% of our annual electricity consumption[2]

The Unisphere: The largest site net-zero energy commercial office building in the world.

(1) PBC = Public Benefit Corporation.
(2) 2021 data; renewable energy sources include onsite solar arrays and certified renewable energy certificates.

Commercial Platforms

HOW WE OPERATE

Four Commercial Platforms

1.

TYVASO® (treprostinil) INHALATION SOLUTION

TYVASO DPI® (treprostinil) INHALATION POWDER

2.

orenitram® treprostinil EXTENDED-RELEASE TABLETS

3.

REMODULIN® (treprostinil) Injection

REMUNITY™ PUMP FOR REMODULIN® (treprostinil) Injection

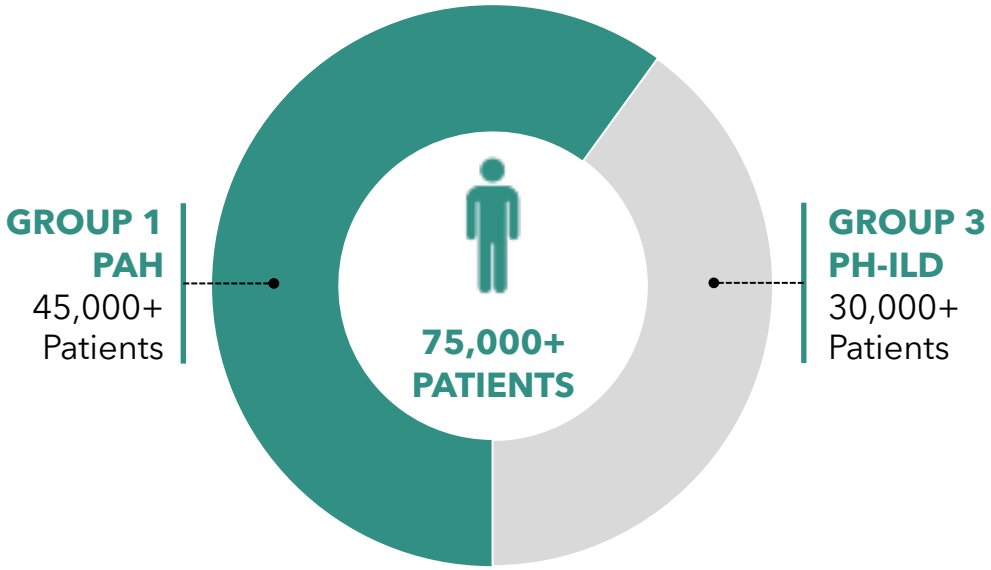
4.

Unituxin® (dinutuximab) Injection

TYVASO® PLATFORM

Nebulized Tyvaso®

Approved for Group 1 PAH[1] and Group 3 PH-ILD[2]



Estimated PAH/PH-ILD Patients in the US[3]

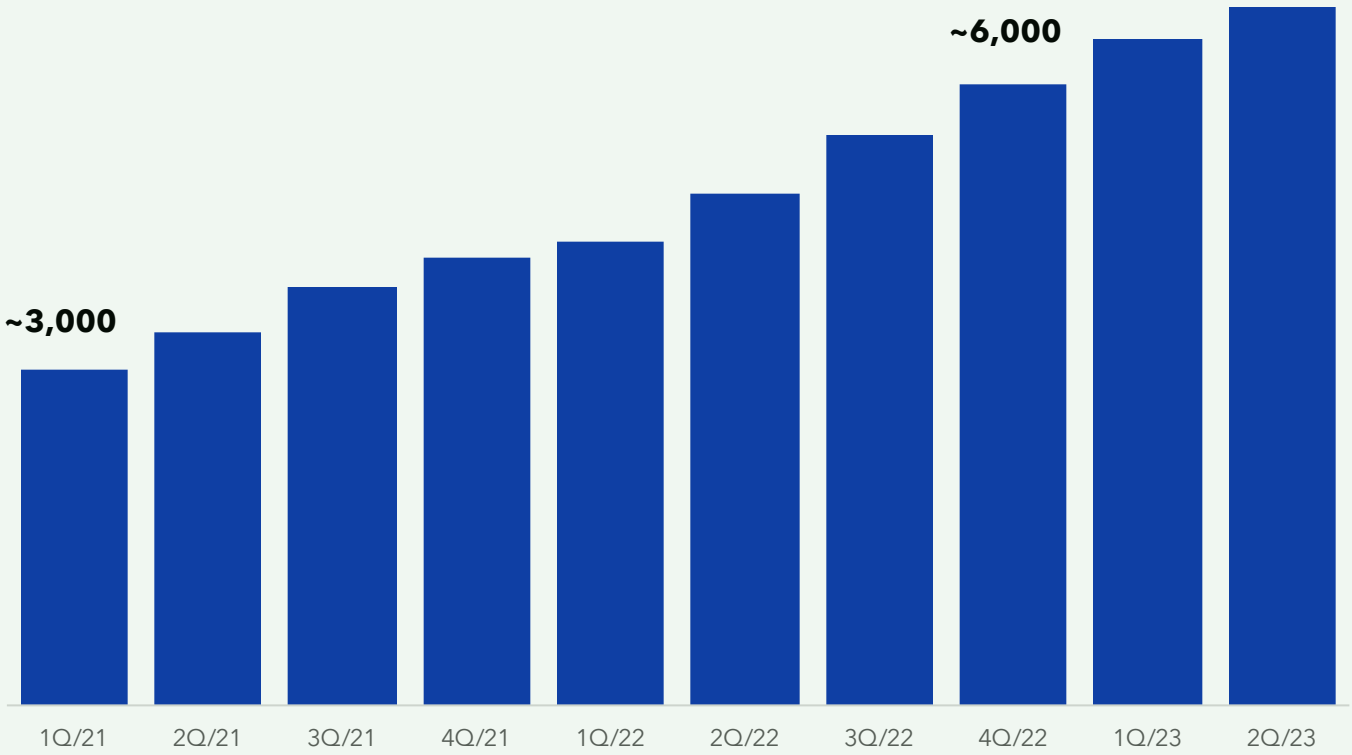
(1) PAH = pulmonary arterial hypertension.
(2) PH-ILD = pulmonary hypertension associated with interstitial lung disease.
(3) Estimate reflects estimated number of Group 1 PAH and Group 3 PH-ILD patients accessible in the US Market.

TYVASO® PLATFORM

Tyvaso® and Tyvaso DPI® for PAH[1] and PH-ILD[2]

Since approval in PH-ILD[3], the number of Tyvaso patients has more than doubled

Number of Tyvaso patients on therapy



(1) PAH = pulmonary arterial hypertension.
(2) PH-ILD = pulmonary hypertension due to interstitial lung disease.
(3) Approval in PH-ILD was on March 31, 2021.

Tyvaso DPI®

TYVASO DPI®
(treprostinil) INHALATION POWDER

Simple To Use

Proven Efficacy

Small and **Portable**

High Patient **Satisfaction**

The proven efficacy of Tyvaso in the palm of your hand

Tyvaso DPI is a simple-to-use, inhaled prostacyclin therapy that delivers the established safety and benefits of Tyvaso.[1,2] Just one breath per cartridge, four times daily.

(1) TYVASO DPI package insert. Research Triangle Park, NC: United Therapeutics Corporation; 2022.
(2) Spikes LA, Bajwa AA, Burger CD, et al. BREEZE: open-label clinical study to evaluate the safety and tolerability of treprostinil inhalation powder as Tyvaso DPI in patients with pulmonary arterial hypertension. Pulm Circ. 2022;12:e12063. doi:10.1002/pul2.12063.

ORENITRAM® PLATFORM

FREEDOM-EV and Other Studies Showed That Orenitram Can...

61% Reduction — Delay **Disease Progression** with a 61% Reduction in Risk

21% Reduction — Significantly **Reduce PVR**[6,7,9] with a 21.5% Reduction in Pulmonary Vascular Resistance

37% Reduction — Indicate a **Positive Impact on Survival** with a 37% Reduction in risk of Death vs. Placebo at Study Closure

11% Increase — **Increase Cardiac Output**[6,8] with an 11.3% Increase in Cardiac Output

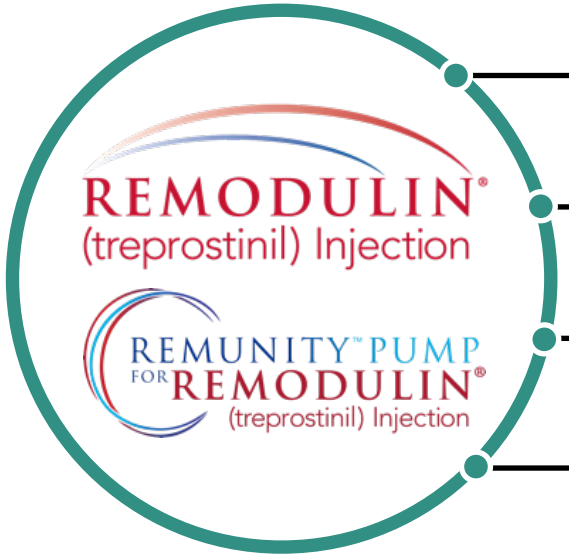
Reduce PAH[10]-Associated Healthcare Costs Relative to Selexipag[2,3,4]

PAH-related healthcare-cost were 67% higher for Selexipag patients than for Orenitram® patients

(1) Due to data collection limitations, data must be interpreted cautiously. Based on vital status substudy of *FREEDOM EV*, Orenitram was associated with a 37% decreased risk of mortality compared with placebo at study closure (which includes additional data accrued in the open-label extension study) in participants for which data was available (89%). Difference in risk of death was not statistically significant at the end of the randomized treatment period or open label extension study. (2) Results were primarily driven by significantly lower pharmacy costs with Orenitram. Please see full reference for study limitations. Comparison of products does not imply clinical comparison`ns of safety or efficacy. (3) Dean BB, Saundankar V, Stafkey-Mailey D, et al. Medication Adherence and Healthcare Costs Among Patients with Pulmonary Arterial Hypertension Treated with Oral Prostacyclins: A Retrospective Cohort Study. Drugs – Real World Outcomes. 2020 Mar 6. Dean BB. Healthcare costs lower with treprostinil versus selexipag for PAH. PharmacoEcon Outcomes News. 2020;849:12. (4) Discussion of cost is not intended to imply clinical comparisons of safety and efficacy. (5) Difference in risk of death was not statistically significant at the end of randomized treatment period or open label extension. At the time of study closure, 11% of patients in the Orenitram group died vs 17.4% of patients in the placebo group (p=0.03). (6) Respiratory Medicine. 2022;193, 106744. (7) 21.5% reduction in PVR for Orenitram vs. a 1.8% reduction for placebo. (8) 11.3% increase in CO for Orenitram vs. a 6.4% reduction for placebo. (9) PVR = pulmonary vascular resistance. (10) PAH = pulmonary arterial hypertension.

REMODULIN® PLATFORM

Remodulin Remains a Stable Foundation for PAH[1] Patients



- Safety and Supply Chain Reliability
- Differentiated Product Platform
- Continued R&D Investment
- Patient Support

(1) PAH = pulmonary arterial hypertension.

REMODULIN® PLATFORM | REMUNITY®

A New Way to Administer Subcutaneous Remodulin

- Small Size
- Prefilled Cartridges
- Water Resistant[1]
- Array of Notifications
- Motorless

(1) Up to 12 feet.

UNITUXIN® PLATFORM

The First Antibody Therapy FDA-Approved for Children with High-Risk Neuroblastoma

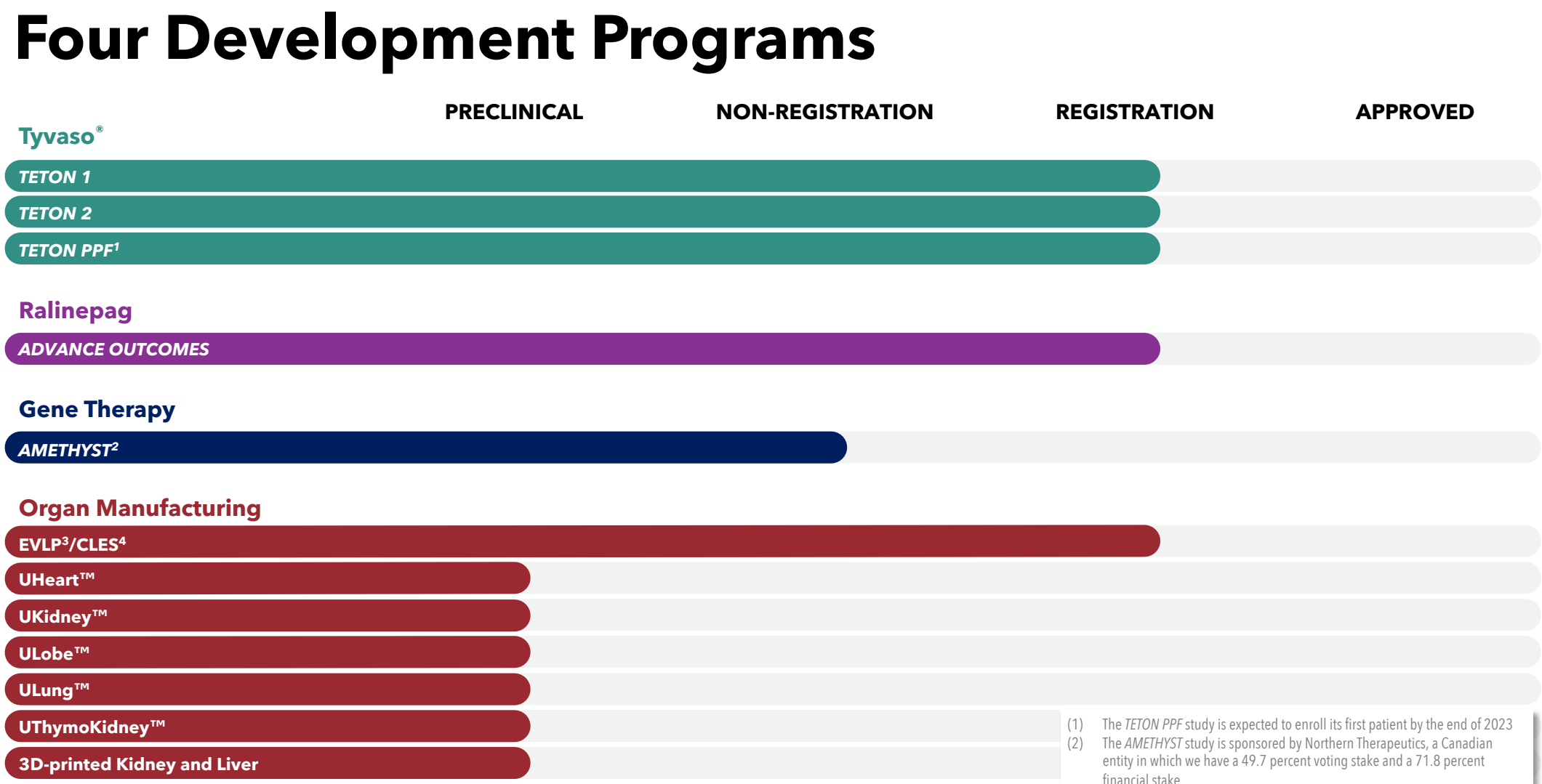
- Part of the standard-of-care regimen for high-risk neuroblastoma for over 10 years[1,2]
- The only antibody therapy with pediatric neuroblastoma experience at over 200 children's hospitals in the United States and Canada[3]
- Developed through years of rigorous study by the Children's Oncology Group (COG) in over 2,500 patients[1,4,5]
- Approval in Japan expands Unituxin's international reach

(1) Yu AL, Gilman AL, Ozkaynak MF, et al; the Children's Oncology Group. Anti-GD2 antibody with GM-CSF, interleukin-2, and isotretinoin for neuroblastoma. N Engl J Med. 2010;363(14):1324-1334. (2) National Institutes of Health, National Cancer Institute website. FDA approves first therapy for high-risk neuroblastoma. https://www.cancer.gov/news-events/cancer-currents-blog/2015/dinutuximab-neuroblastoma. Accessed June 11, 2021. (3) Data on file. United Therapeutics Corporation. Research Triangle Park, NC. 200 children's hospitals. July 2021. (4) 3. Desai AV, Gilman AL, Ozkaynak MF, et al. Outcomes and toxicities in patients non-randomly assigned to immunotherapy Children's Oncology Group (COG) ANBL0032. Poster presented at 56th American Society of Clinical Oncology Annual Meeting; May 29-June 2, 2020; Chicago, IL. Abstract 10523. (5) Unituxin [package insert]. Research Triangle Park, NC: United Therapeutics Corporation; 2020.

Development Programs

DEVELOPMENT PROGRAMS

Four Development Programs



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(3) EVLP = *ex-vivo* lung perfusion
(4) CLES = centralized lung evaluation system

DEVELOPMENT PROGRAMS

Robust Pipeline

FIVE Registration Phase Studies

- ***TETON 1***
- ***TETON 2***
- ***TETON PPF[1,2]***
- ***ADVANCE OUTCOMES***
- **EVLP[3]/CLES[4]**

SEVEN Preclinical Product Leads

- **Allogeneic Lungs**
- **Allogeneic Livers**
- **Autologous Lungs**
- **Autologous Kidneys**
- **Xenohearts**
- **Xenokidneys**
- **Thymokidneys**

(1) The *TETON PPF* study is expected to enroll its first patient by the end of 2023.
(2) PPF = progressive pulmonary fibrosis
(3) EVLP = Ex-Vivo Lung Perfusion;
(4) Centralized Lung Evaluation System.

TYVASO® DEVELOPMENT PLATFORMS

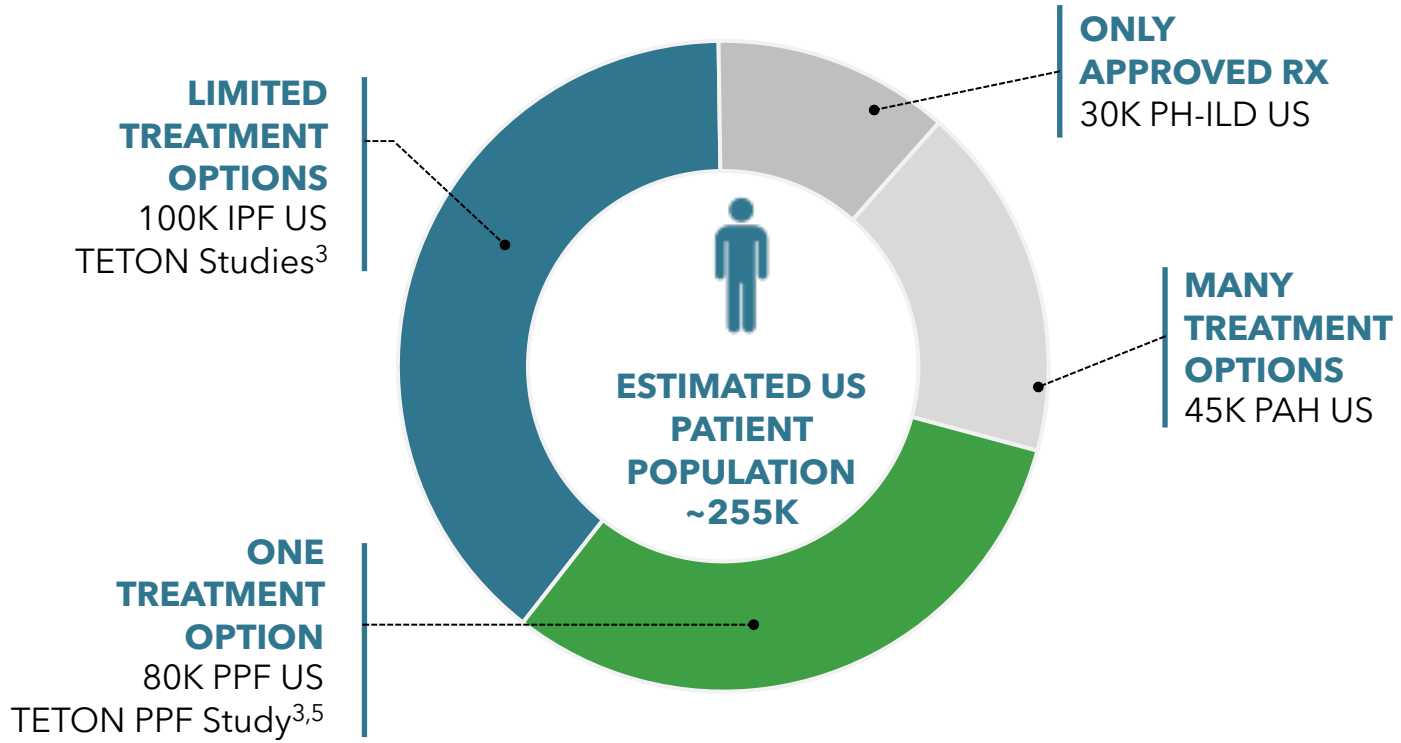
Four Potential Indications with Two Devices

PAH[1] (WHO Group 1)	PH-ILD[2] (WHO Group 3)
FDA APPROVED 2009	FDA APPROVED 2021
IPF[3]	IPF[3]
TETON 1 US/CANADA PHASE 3	TETON 2 ROW[6] PHASE 3
PPF[3,4]	
TETON PPF US/CANADA PHASE 3[5]	

TYVASO® (treprostinil) INHALATION SOLUTION

TYVASO DPI® (treprostinil) INHALATION POWDER

Tyvaso portfolio positioned to advance our growth



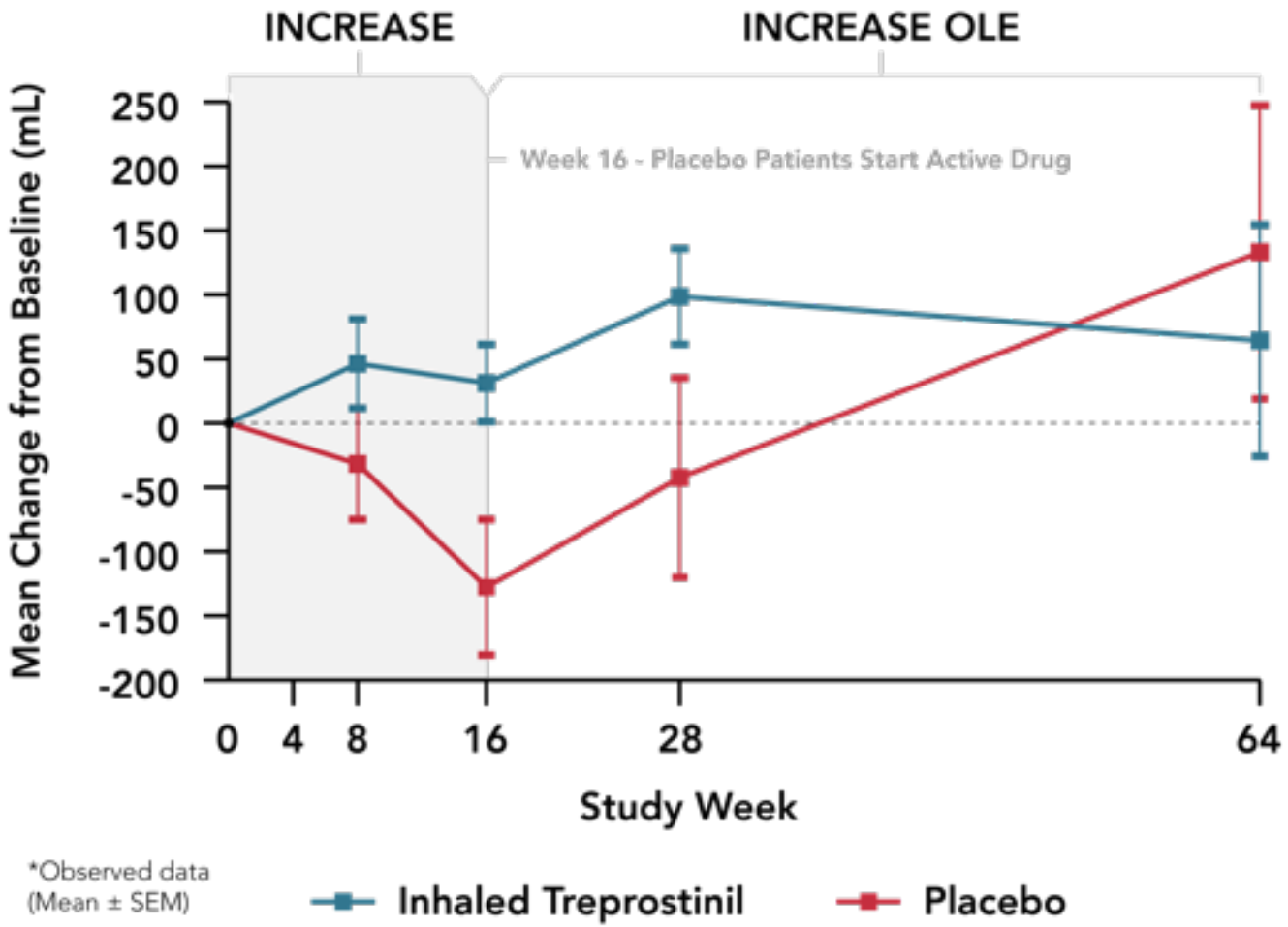
(1) PAH = pulmonary arterial hypertension.
(2) PH-ILD = pulmonary hypertension associated with interstitial lung disease.
(3) Tyvaso and Tyvaso DPI are not approved for IPF or PPF in any jurisdiction.
(4) PPF = progressive pulmonary fibrosis.
(5) The *TETON PPF* study is expected to enroll its first patient by the end of 2023.
(6) ROW = rest of world.

TYVASO®

Tyvaso for IPF[1,2]

The *TETON* studies evolved from UT-sponsored in vitro studies and FVC[3] observations in *INCREASE*[4] and *INCREASE OLE*[5]

IPF subgroup showed meaningful and sustained FVC improvement, including when placebo patients were crossed over in the open-label extension



(1) IPF = idiopathic pulmonary fibrosis.
(2) Tyvaso is not approved to treat IPF.
(3) FVC = forced vital capacity.
(4) N Engl J Med 2021; 384:325-334 DOI: 10.1056/NEJMoa2008470
(5) Data presented at ATS 2022.

TYVASO®

Tyvaso for PPF[1,2]

PPF affects up to 80,000 patients in the US with only one approved therapy[3]

PPF is a group of ILD conditions that exhibit progressive, self-sustaining fibrosis, and a similar disease course to IPF[4].

Patients with PPF commonly have underlying ILDs[5] of idiopathic interstitial pneumonias, autoimmune ILDs, chronic fibrosing hypersensitivity pneumonitis, and fibrotic ILDs related to environmental or occupational exposure.

TETON PPF study expected to commence in late 2023

(1) PPF = progressive pulmonary fibrosis.
(2) Tyvaso is not approved to treat PPF.
(3) Nintedanib is the only approved therapy in the US to treat PPF.
(4) IPF = idiopathic pulmonary fibrosis
(5) ILDs = interstitial lung diseases

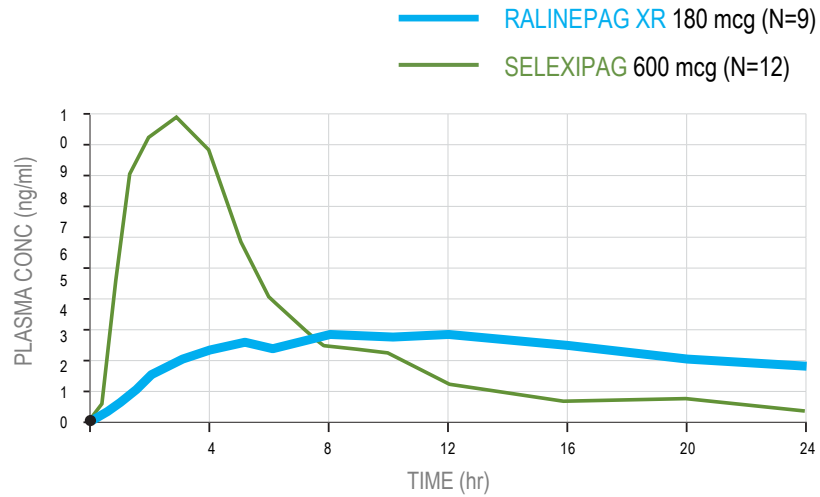
RALINEPAG DEVELOPMENT PROGRAM

Ralinepag

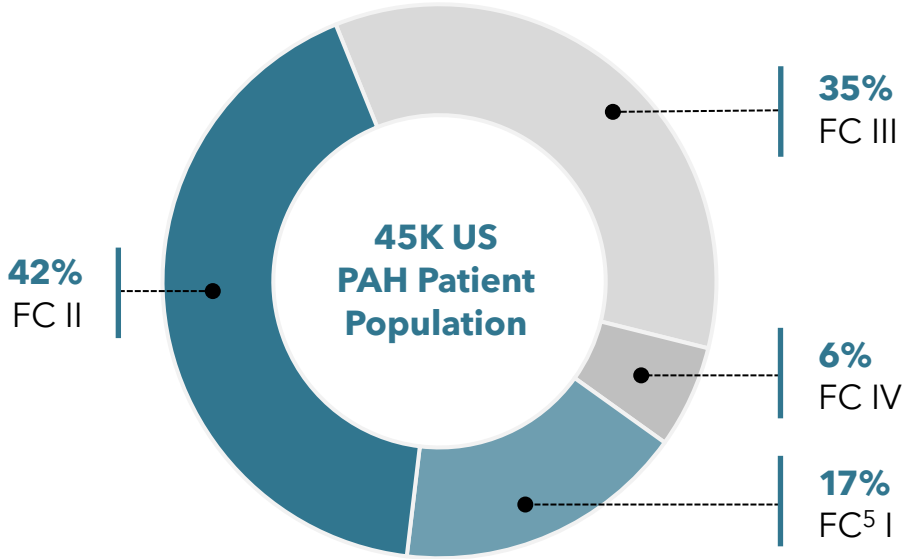
In phase 2 studies, Ralinepag[1] demonstrated a potential QD[2] dosing profile and potentially enhanced affinity vs. selexipag

Single-Dose PK[3] Profile Comparison of Ralinepag XR Tablet vs. Selexipag in Healthy Subjects, separate studies.

Prolonged plasma PK profile of ralinepag XR tablet supports QD dosing; selexipag plasma PK profile consistent with need for more frequent dosing

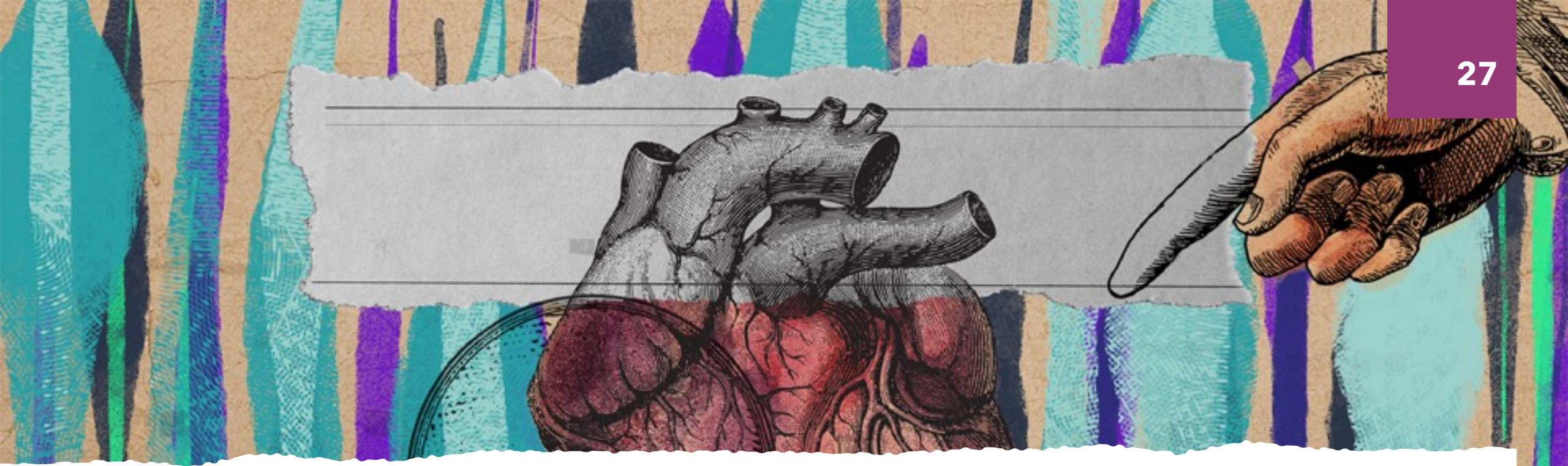


Phase 3 Study, *ADVANCE OUTCOMES*, Underway

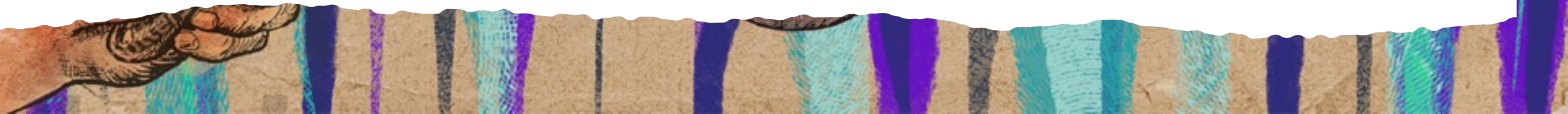


- 6.5 -10x greater potency vs. selexipag
- Patients primarily on dual therapy: unprecedented 20.1% PVR[4] improvement
- 24-Hour unremitting receptor engagement
- Potential for once-a-day dosing

(1) Ralinepag is not approved for any indication in any jurisdiction.
(2) QD = from the latin quaque die, meaning once a day.
(3) PK = pharmacokinetic profile – describes the absorption, distribution, metabolism, and excretion of the drug in the body.
(4) PVR = pulmonary vascular resistance.
(5) FC = functional class.



Organ Manufacturing



ORGAN MANUFACTURING | EVLP

Ex Vivo Lung Perfusion

LUNG BIOENGINEERING

Lung Bioengineering's unique centralized Ex Vivo Lung Perfusion (**EVLP**) service model supports transplant centers by removing barriers and providing touchpoints throughout the transplantation process in order to optimize organ utilization.

EVLP utilizes FDA-approved XPS™ EVLP technology to increase the viability of available donor lungs. We are also conducting a registration phase study of another EVLP technology known as the Centralized Lung Evaluation Services (**CLES**)

Optimizing this process is the first step toward saving more lives through organ transplantation.

ORGAN MANUFACTURING | EVLP

Ex Vivo Lung Perfusion

Our EVLP Procedure Figures as of June 30, 2023[1]

541

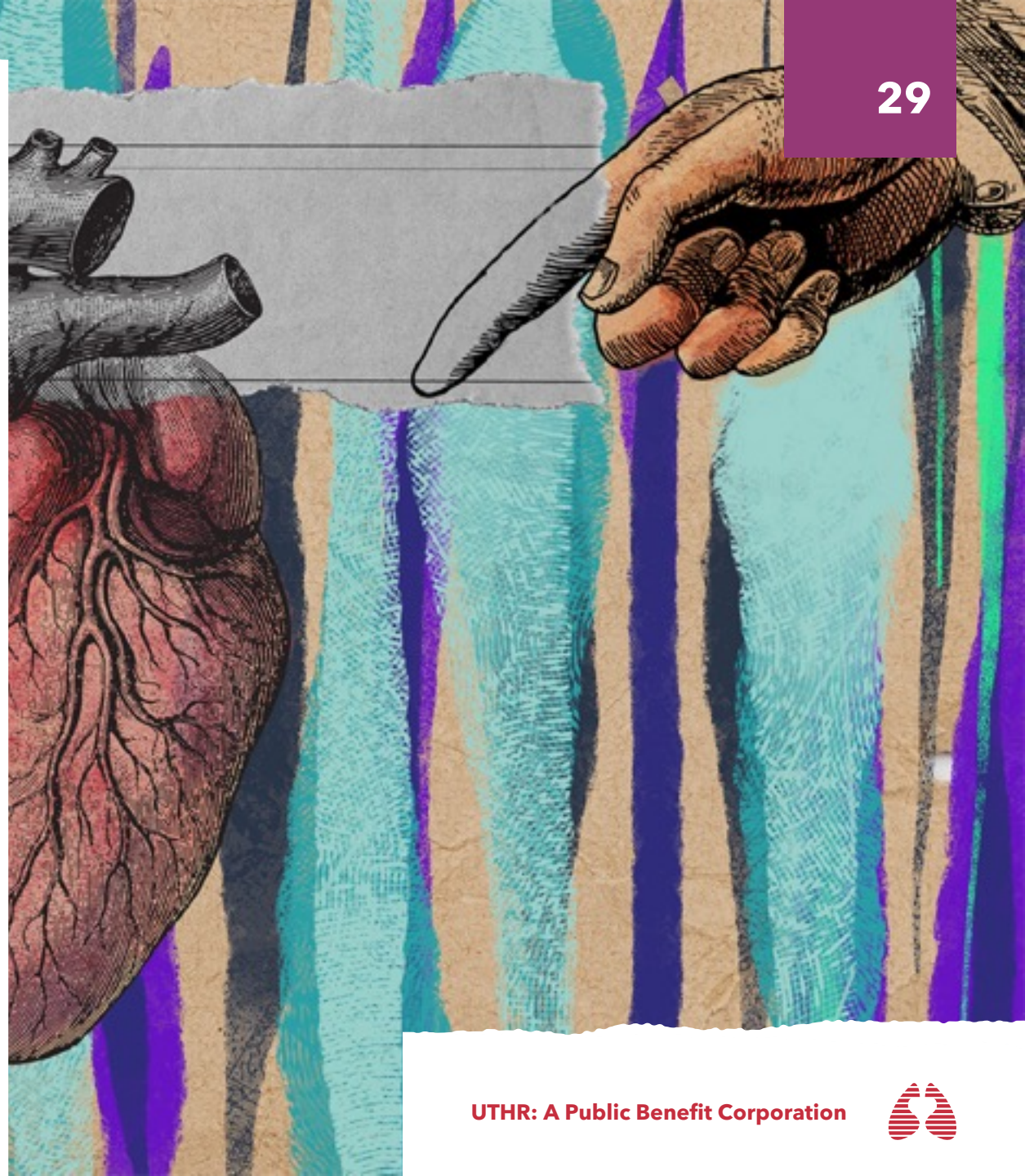
DONOR LUNGS
At LB1 in Silver Spring, MD and LB2 in Jacksonville, FL

327

EVLP LUNGS
Accepted for transplant

334

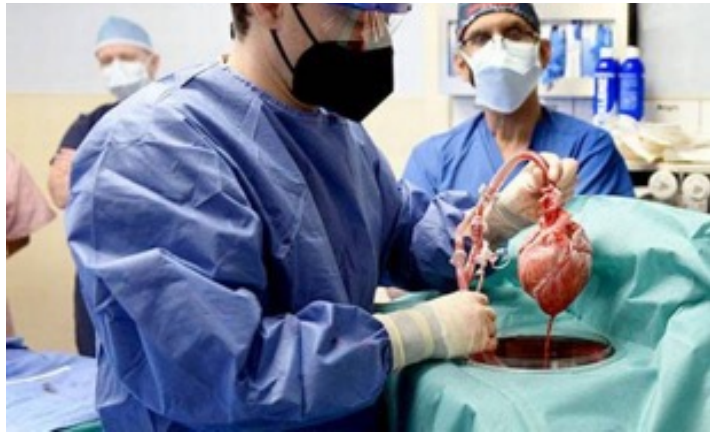
PATIENTS
Transplanted with EVLP lungs



(1) EVLP metrics include the use of the XPS technology and the Centralized Lung Evaluation System (**CLES**) protocols.

Xenotransplantation

UHeart™

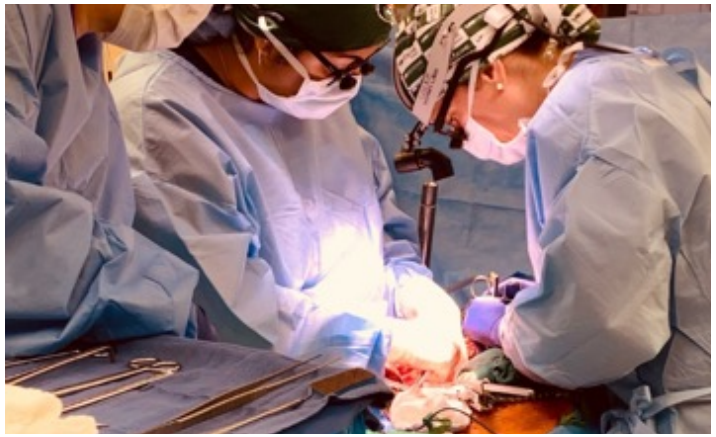


Collaboration with the University of Maryland

January 2022

Dr. Bartley Griffith of University of Maryland successfully transplanted the first genetically modified UHeart™ into a living human with two-month survival

UKidney™

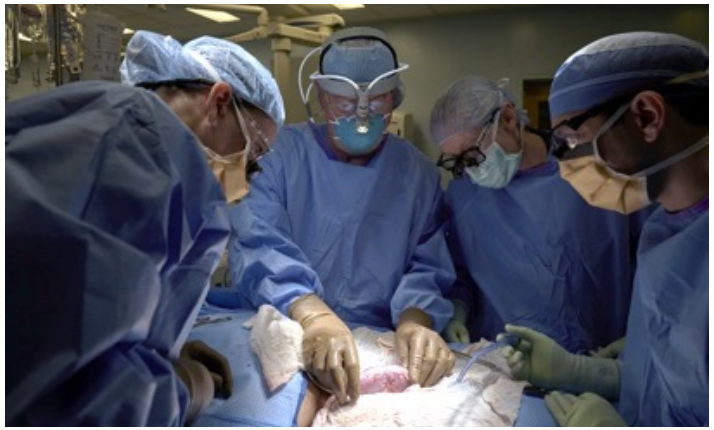


Collaboration with the University of Alabama Birmingham

January 2022

Dr. Jayme Locke of UAB announced the first peer-reviewed study of its kind after successfully transplanting the first double UKidney™ transplant into a brain-dead human recipient in October 2021

UThymoKidney™



Collaboration with New York University Langone Medical Center

September 2021

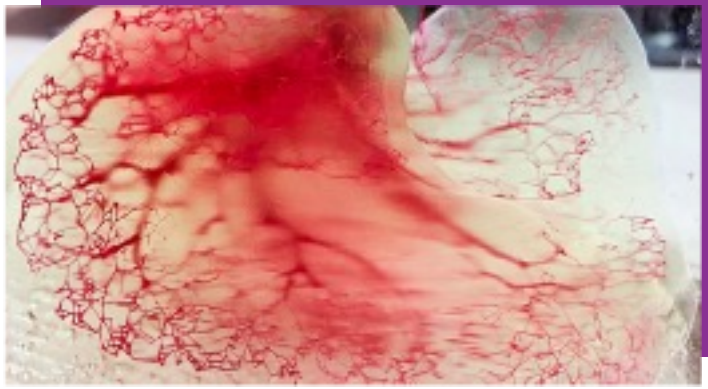
Dr. Robert A. Montgomery of NYU Langone successfully transplanted the first xenokidney into a brain-dead human recipient

Ulung™ & ULobe™

ULobe™

ULobe™ is a development-stage engineered lung generated with a porcine lung scaffold and human allogeneic lung cells.

United Therapeutics
Regenerative Medicine



ULung™

ULung™ is a development-stage personalized lung composed of a 3D printed lung scaffold cellularized with either allogeneic cells or a patient's own cells.

LUNG
BIOTECHNOLOGY

ORGAN MANUFACTURING | ULUNG™

ULung™ Unveiled at Life Itself

June 2022

Martine Rothblatt of United Therapeutics and Chuck Hull of 3D Systems unveil the most complex 3D printed object ever: a human lung scaffold

44	4,000 km	200
trillion voxels	pulmonary capillaries	million alveoli

Demonstrates gas exchange in animal models

Collaboration with 3D Systems Corporation

Delivery Systems

Unither BIOÉLECTRONIQUE

Unither Bioelectronics is paving the way for the future of sustainable and reliable organ transplant delivery.

Autonomous electric aircraft organ delivery systems will help further support United Therapeutics' organ manufacturing efforts.

Recent Updates

September 2021
Unither successfully delivered a set of lungs via drone between two hospitals in Toronto, Canada.

Collaborations:

EHang

Tier 1

Beta Technologies


United
Therapeutics
CORPORATION