



OUR MISSION:

**‘CREATE A
FUNCTIONAL CURE
FOR TYPE 1
DIABETES’**

Corporate Overview

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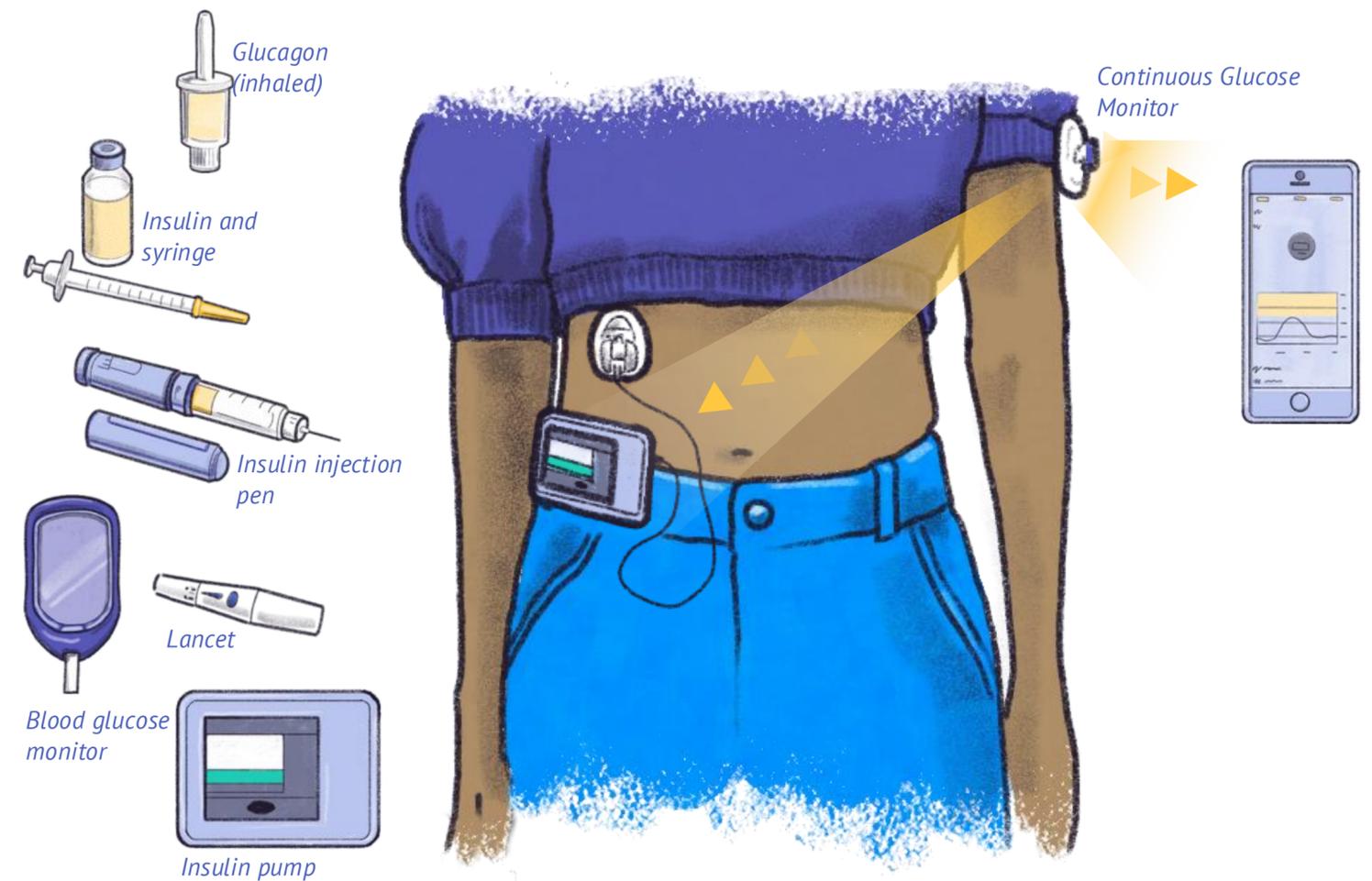
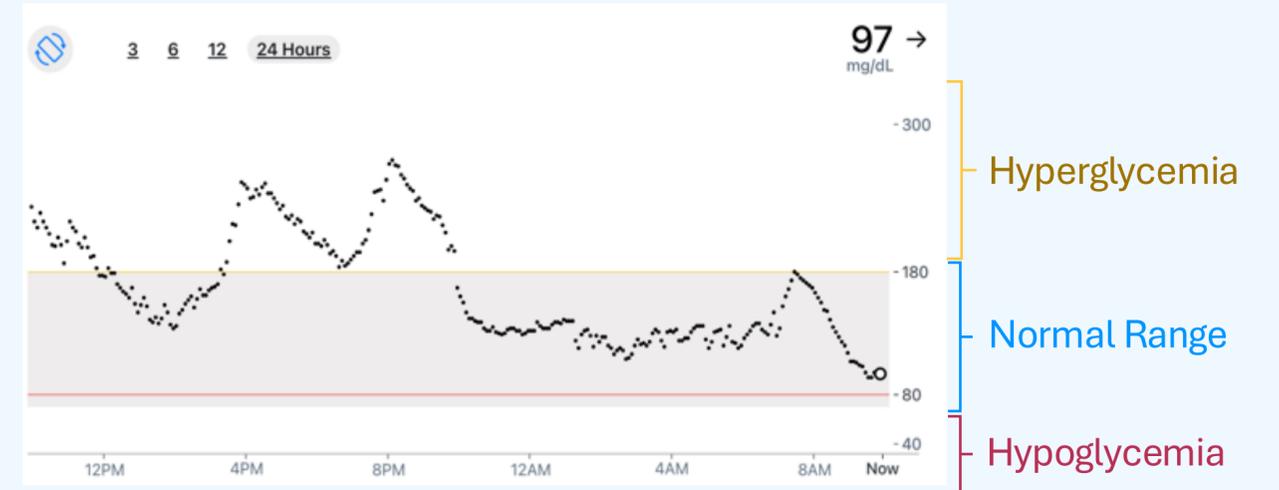
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CURRENT T1D TREATMENT

Lacks full hormonal control - insulin only, no glucagon or somatostatin, highly complex and psychologically burdensome:

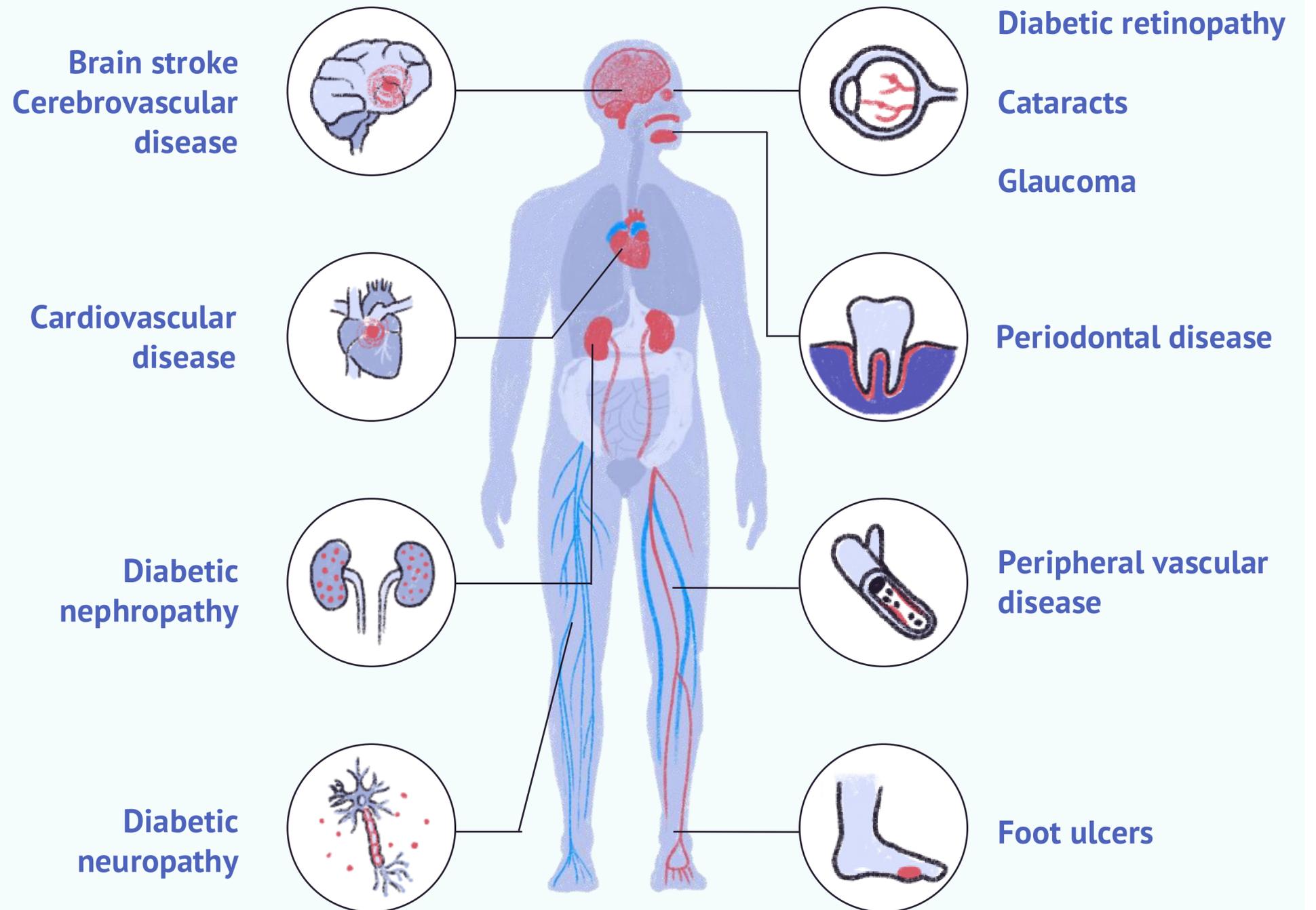
- Strict blood glucose monitoring via continuous glucose monitors (CGMs) or blood glucose monitor.
- Multiple daily insulin injections or pump usage
- Dietary adjustments
- Constant vigilance against hypoglycemia (severe low blood sugar)



DOES CURRENT TREATMENT WORK?

T1D PATIENTS SUFFER FROM & PREMATURELY DIE OF COMORBIDITIES

1 IN 10 DIE OF SEVERE HYPOGLYCEMIA



THREE THINGS NEEDED TO CREATE A FUNCTIONAL CURE FOR TYPE 1 DIABETES

SERNOVA: CELL POUCH BIO-HYBRID ORGAN

- Retrievability of transplanted islet cells essential to decrease long-term regulatory and safety risks .
- Full vascularisation to provide oxygen and nutrients for long-term cell survival
- Cell containment and engraftment enhances safety and functionality compared to systemic or hepatic transplants

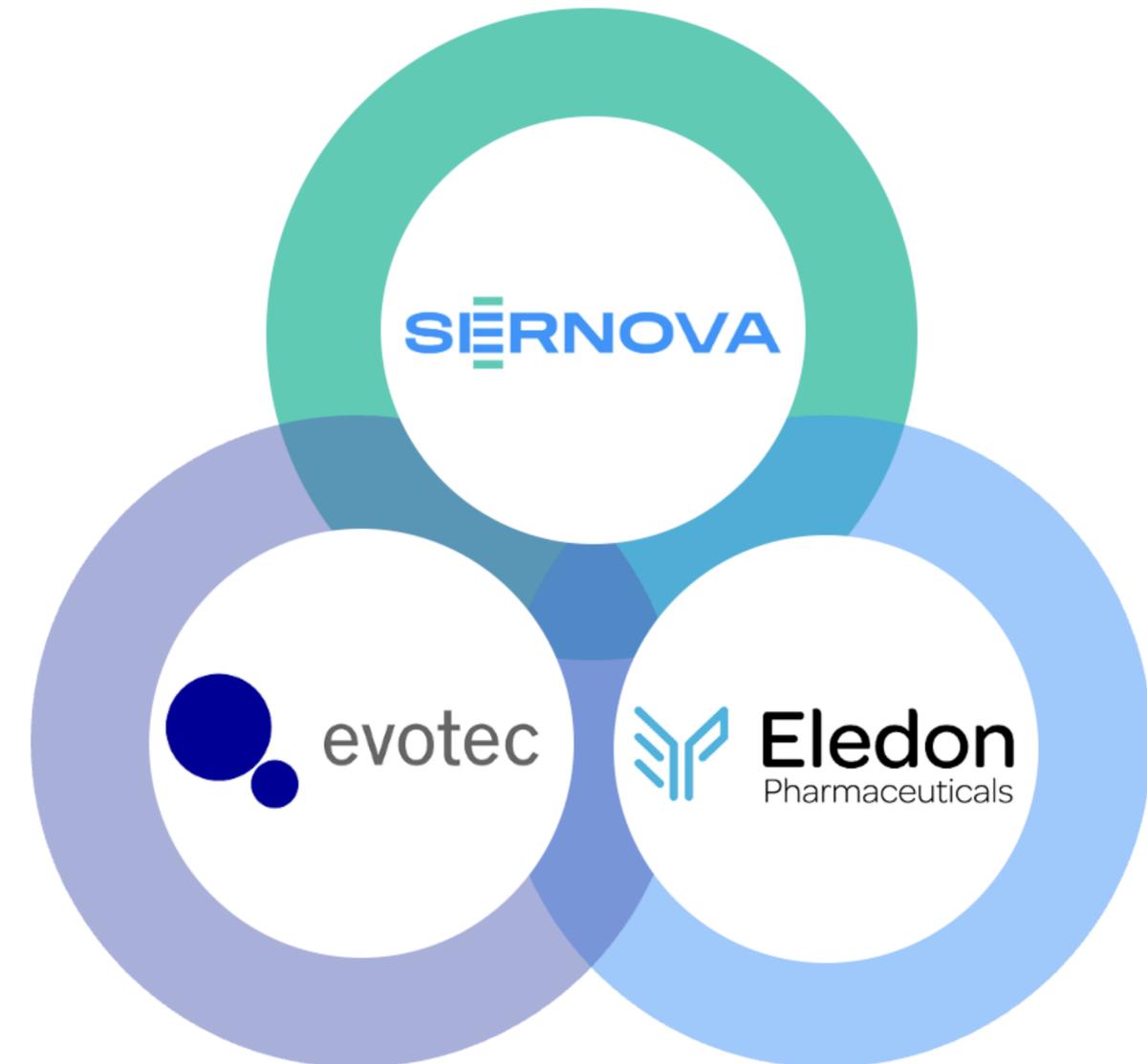
EVOTEC: IPSC CELLS

- Unlimited supply of high- quality iPSC Islet cells, which produce insulin, somatostatin, and glucagon

ELEDON: TEGOPRUBART

- Gentler and less toxic immunosuppression drug
- Islet engraftment was three to five times higher than subjects who received tacrolimus-based immunosuppression, suggesting treatment with tegoprubart is less toxic to transplanted islets resulting in improved graft survival and function
- Rapid time to insulin independence in the clinic

FUNCTIONAL CURE!



VALUE CREATING MANAGEMENT TEAM: >\$5B EXIT



Jonathan Rigby 

CEO & Chair

...and type 1 diabetic



James Parsons 

CFO



Marylyn Rigby 

CCO



Perry Calias, PhD 

CDO & Head of R&D



David Burke 

VP, Investor Relations

WORLD-CLASS CLINICAL ADVISORY BOARD

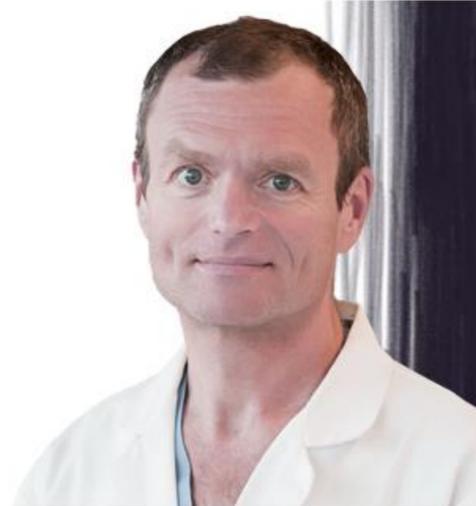


Robert Gabbay, MD, PhD, FACP

Chair

Associate Professor at Harvard Medical School and the Joslin Diabetes Center

Former Chief Scientific and Medical Officer of the American Diabetes Association (ADA) and Chief Medical Officer of the Joslin Diabetes Center



Andrew Posselt, MD, PhD

Transplant and Bariatric Surgeon, Director, Pancreatic Islet Transplant Program, UCSF Medical Center



Melena Bellin, MD

Professor, Division of Pediatric Endocrinology & Department of Surgery, University of Minnesota



Mark Atkinson, PhD

Director, University of Florida Diabetes Institute; Professor, Departments of Pathology and Pediatrics



Holger Russ, PhD

Associate Professor, Department of Pharmacology and Therapeutics, University of Florida

INVESTMENT HIGHLIGHTS

UNIQUE CELL POUCH BIO-HYBRID ORGAN

- Fully retrievable should the need arise to improve safety
- Fully vascularized to provide oxygen and nutrients to islet cells providing long term survival
- Full cell containment and engraftment
- No evidence of detrimental fibrosis

POSITIVE PHASE 1 / 2 CLINICAL DATA

- On track to meet Primary and Secondary endpoints
- 8 of 12 patients so far reached insulin independence
- 12 of 12 patients reached normal HbA1c glycemic control
- Significant improvement in patient quality of life as demonstrated in three T1D patient surveys

UPCOMING MILESTONES

- Q4 2025 Initiate final Cohort C, data readouts H1 2026
- Initiate phase 1 / 2 / 3 registration study H2 2026 with EVOTEC cells
- Initiate physician sponsored trial in acute pancreatitis to prevent T1D after total pancreatectomy
- Uplist to NASDAQ in 2026

SERNNOVA

Cell Pouch Bio-hybrid Organ in T1D

Phase 1 / 2 Clinical Trial



CURRENT CLINICAL STATUS, DATA SUMMARY AND NEXT STEPS

- Cohort A complete, Cohort B near complete. Data shows:
 - Insulin independence
 - Islet containment, engraftment, survival and functionality for up to 5 years
 - No detrimental Cell Pouch fibrosis
 - Highly favorable quality of life in 3 industry standard assessments
 - Improved time in normal glycemic range
 - Improved or maintained controlled HbA1c data in normal range
 - Positive fasting and stimulated c-peptide following islet transplants to Cell Pouch only
- Preparing to initiate final Cohort C, 7 patients using 10 chamber Cell Pouch and novel immune suppression from partner Eledon Pharmaceuticals
- Initiate clinical trials in collaboration with Evotec in 2026 using iPSC islet-like clusters in Cell Pouch.

Data show increase in cumulative transplanted islets improves metabolic outcomes and supports thesis that no portal vein transplant will be needed with Cell Pouch and Evotec iPSC cells

A NEW FUNCTIONAL CURE FOR T1D

Our Cell Pouch™ Bio-hybrid Organ works to restore the body's normal function and hormonal cycle control, so that patients with T1D can focus on what matters most: **LIVING THEIR LIVES!**

Unique and Critical Target Product Profile:

- *Unique* retrievability of transplanted islet cells essential to decrease long-term regulatory and safety risks
- *Unique* full vascularisation to provide oxygen and nutrients
- *Unique* cell containment and engraftment enhances safety and functionality compared to systemic or hepatic transplants



CELL POUCH PRE-IMPLANT

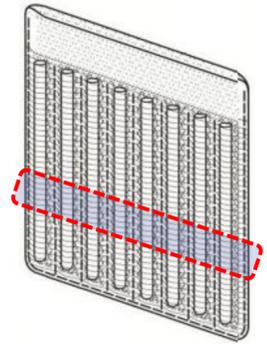
- Porous surgical mesh
- Implanted below skin of abdomen and above muscle fascia
- PTFE rods allow creation of tissue chambers prior to removal after vascularization (~4-6 weeks)
- Followed by impregnation with islet cells



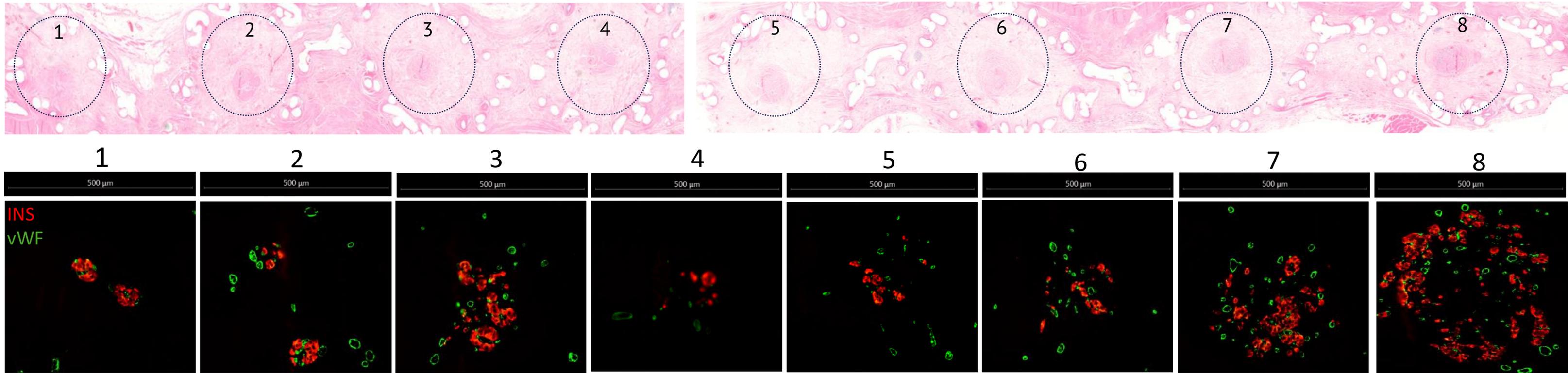
BIO – HYBRID ORGAN POST REMOVAL - 5 YRS

- Fully retrievable
- Patient insulin independent >4.5 yrs
- Abundant islets producing insulin, glucagon, & somatostatin
- No detrimental fibrosis and full structural integrity maintained

ABUNDANT, VASCULARIZED, INSULIN-PRODUCING BETA CELLS THROUGHOUT CELL POUCH AFTER 5-YEARS POST-TRANSPLANTATION

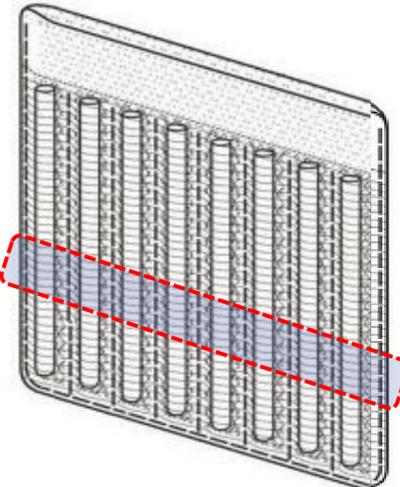


8 Channel Cell Pouch Tissue Chambers:



- Positive immunofluorescent staining for **Insulin**, and **von Willebrand Factor** (blood vessels)
- **Rich vascularization of abundant insulin-producing cells and no evidence of detrimental fibrotic tissue**

ABUNDANT, VASCULARIZED, INSULIN-PRODUCING BETA CELLS THROUGHOUT CELL POUCH AFTER 5-YEARS POST-TRANSPLANTATION



Islets in Cell Pouch
>5 years
Post-transplant

Islets in Healthy
Human Pancreas

<p style="color: red;">Insulin</p> <p style="color: green;">Glucagon</p> <p style="color: magenta;">Somatostatin</p>	<p style="color: red;">Insulin</p>	<p style="color: green;">Glucagon</p>	<p style="color: magenta;">Somatostatin</p>



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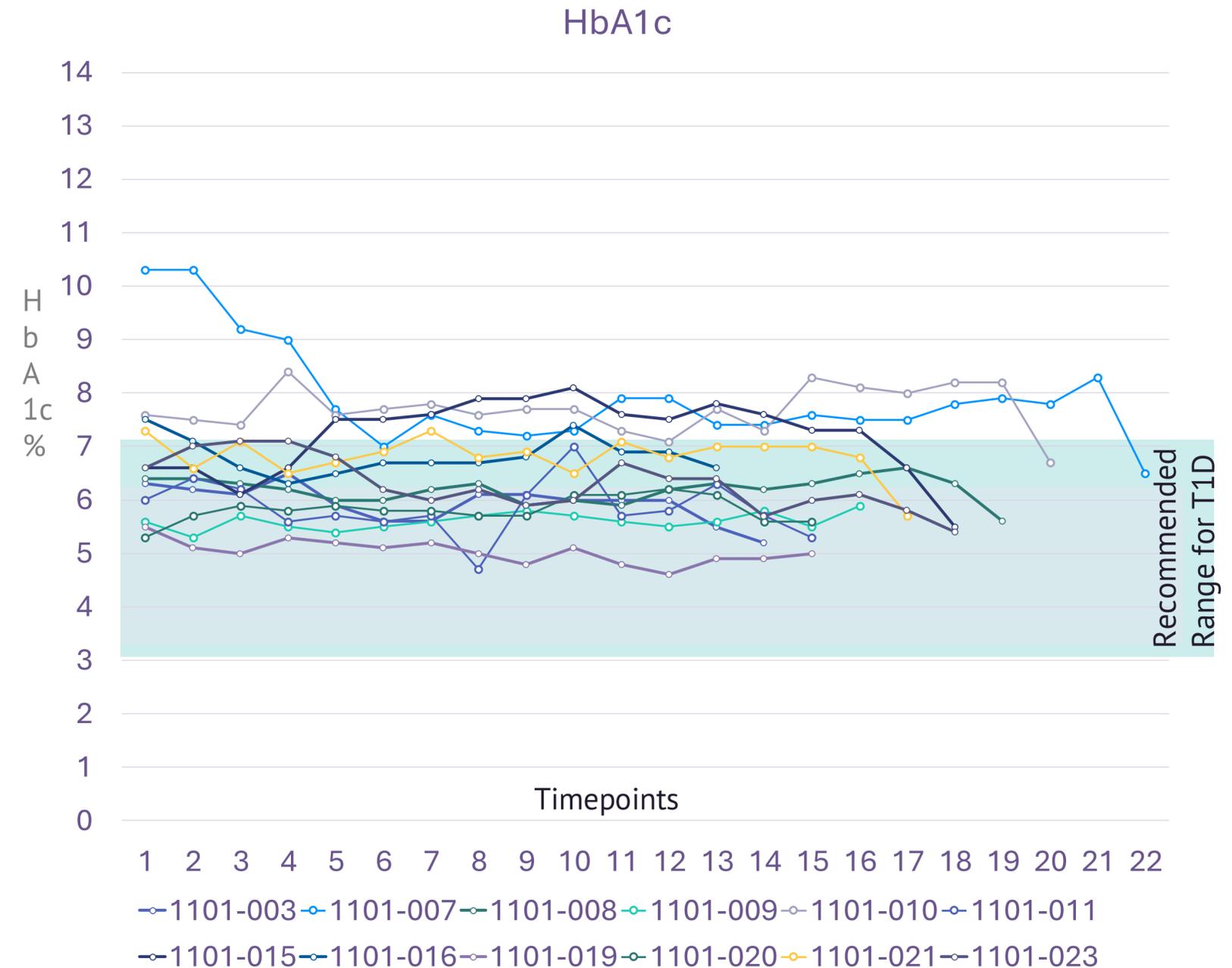
Clinical Data

Phase 1 / 2 Clinical Study

ALL 12 PATIENTS ACHIEVED AN HbA1c of <7.0% i.e., NORMAL GLYCEMIC CONTROL

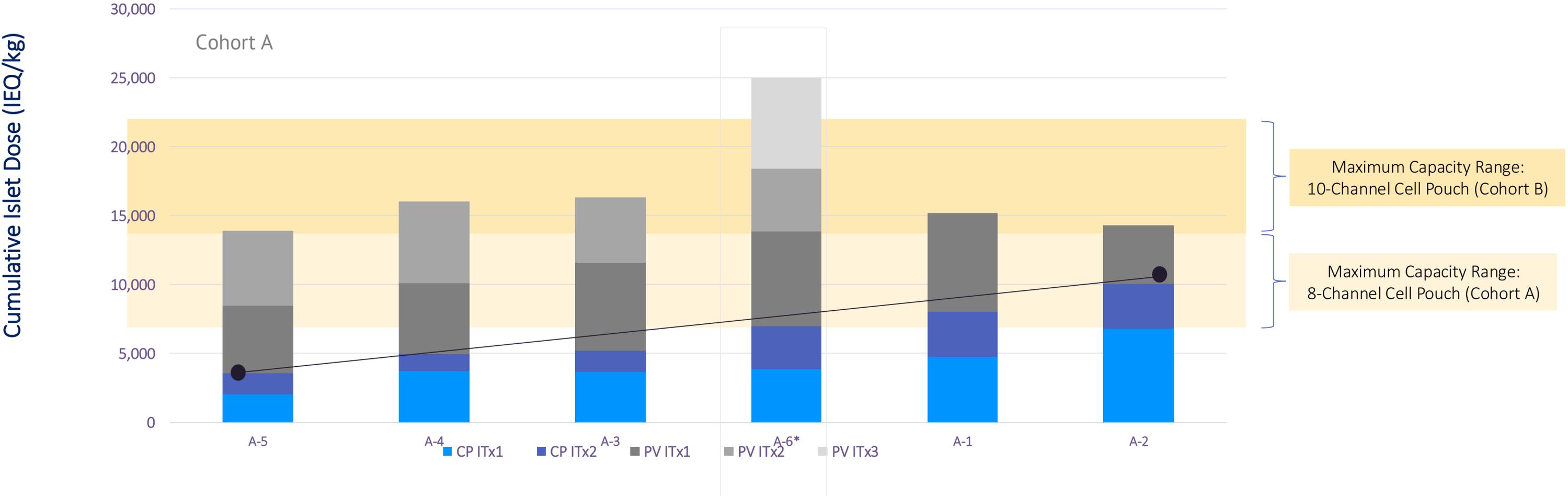
Epidemiologic analysis demonstrate each 1% reduction in A1C is associated with a 14% reduced risk of myocardial infarction

- Hemoglobin A1c or HbA1c, is a blood test that provides a measure of a person's average blood sugar levels over the past 2-3 months
- Achieving and maintaining an A1c below 7% can significantly reduce the risk of long-term diabetes complications
- Once achieved, all 12 patients maintained a HbA1c of <7.0% for the duration of their participation in the study



INSULIN INDEPENDENCE ACHIEVED IN 8 OF 12 PATIENTS SO FAR ACROSS COHORTS (2 ONGOING)

1. Islet dose required to achieve insulin independence has been determined
2. The more islets administered via the Cell Pouch, the fewer required in the portal vein
3. ****Cell Pouch alone has capacity to reach insulin independence without portal vein using Evotec abundant high quality iPSC islets****

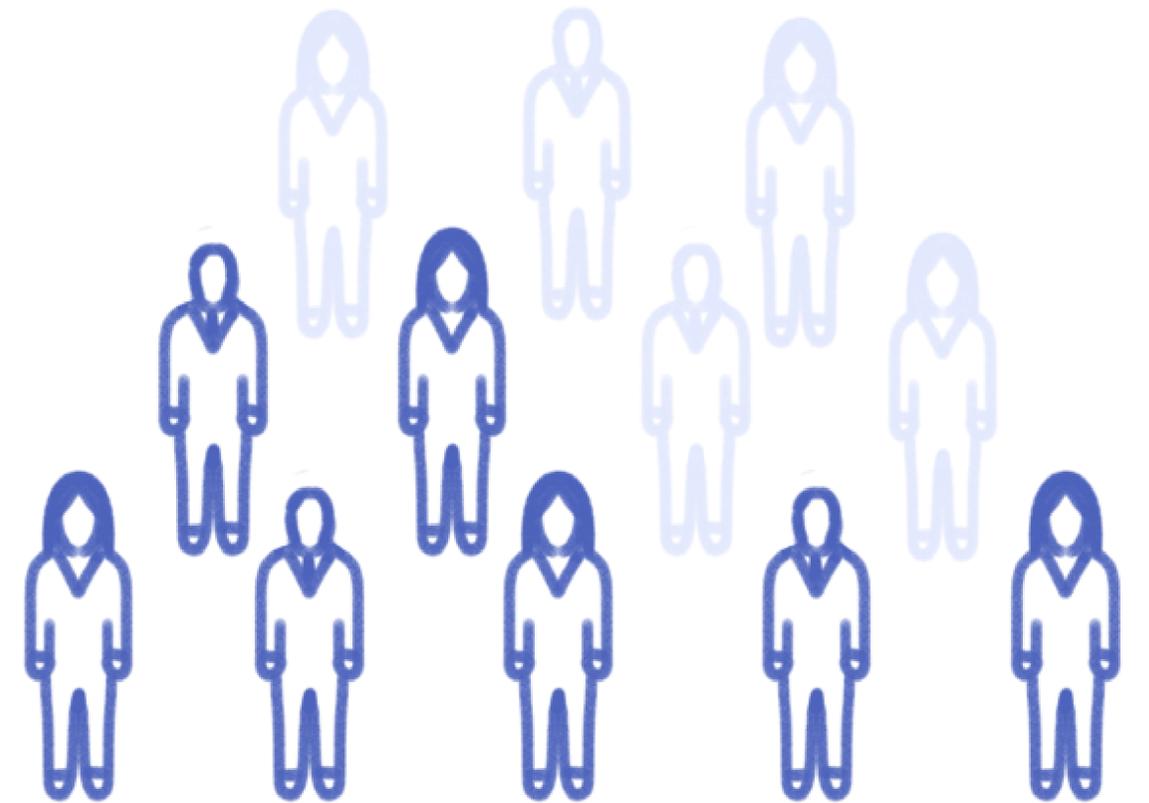


- Cell Pouch Islet quantity and quality limited by donor source currently. Problem resolved by switching to EVOTEC iPSC Islets in 2026

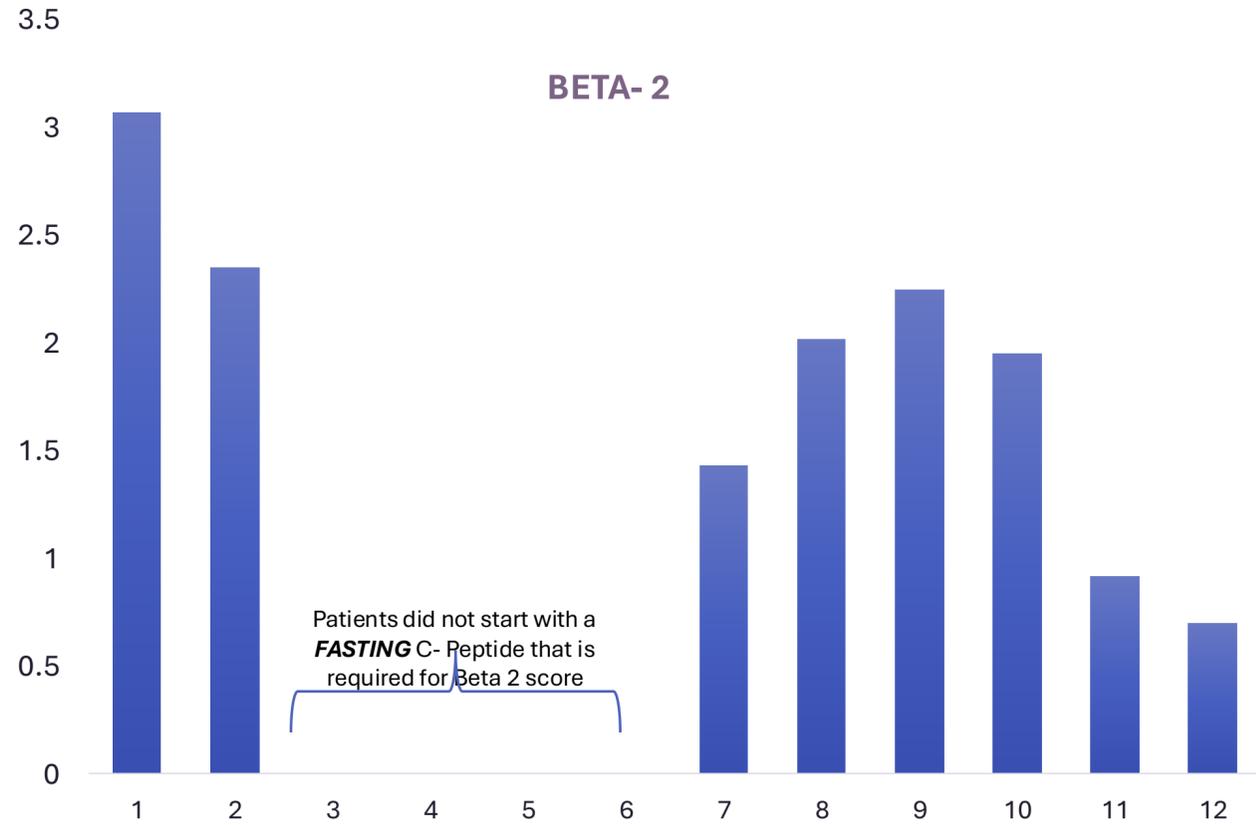
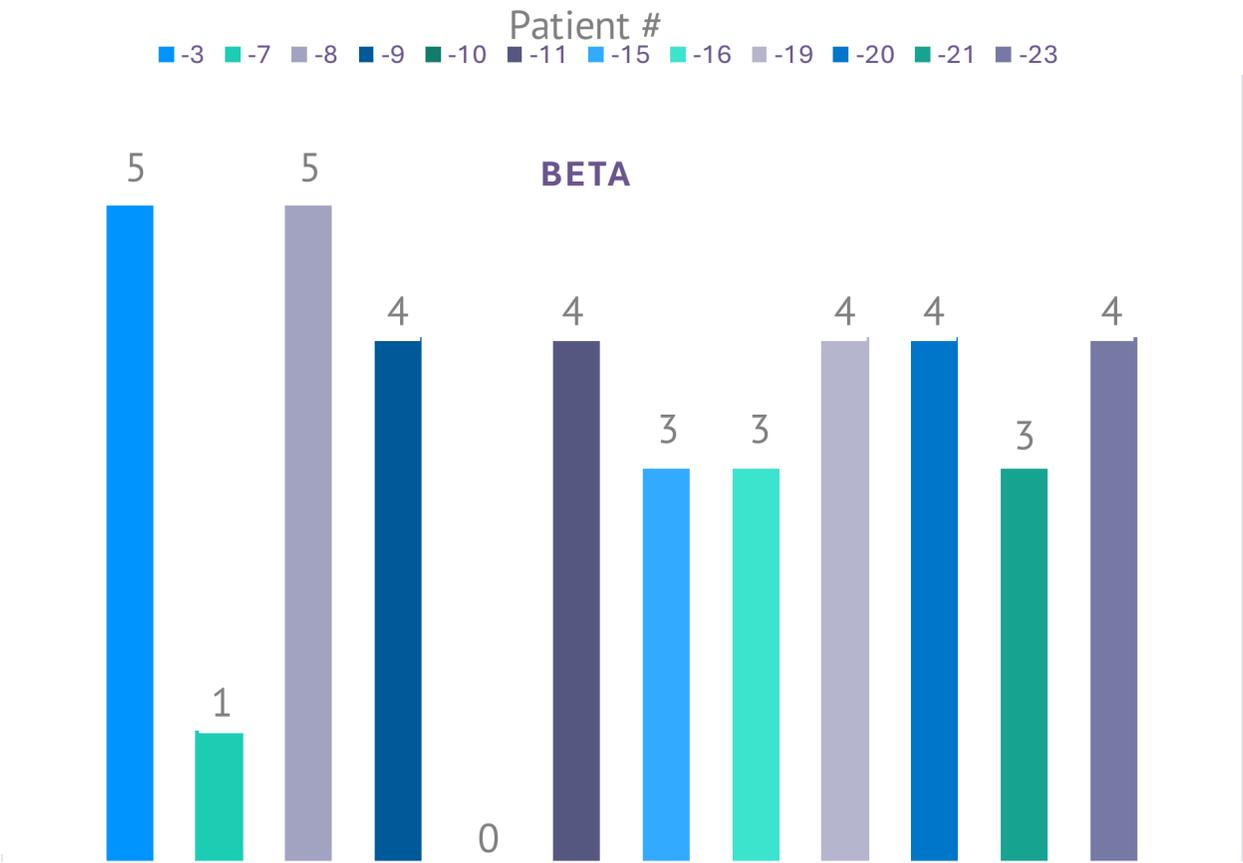
SUCCESSFUL ISLET ENGRAFTMENT

C-peptide is a biomarker that measures the amount of insulin produced by the transplanted islets in Cell Pouch.

- For successful islet transplantation, a C-peptide level of 0.3 ng/mL is generally considered a threshold for graft function.
- 7 of 12 patients, with Cell Pouch alone showed C-peptide levels of 0.3 ng/mL or greater (in the presence of exogenous insulin), indicating successful islet cell engraftment and insulin production in the Cell Pouch.
- The interim data as analyzed using industry standard composite BETA and BETA-2 scores and histology of explanted Cell Pouches provide further evidence of engraftment and function of islet cells after transplantation into the Cell Pouch alone.



BETA & BETA-2 SCORES SHOW POSITIVE ISLET ENGRAFTMENT AND ISLET FUNCTION IN CELL POUCH



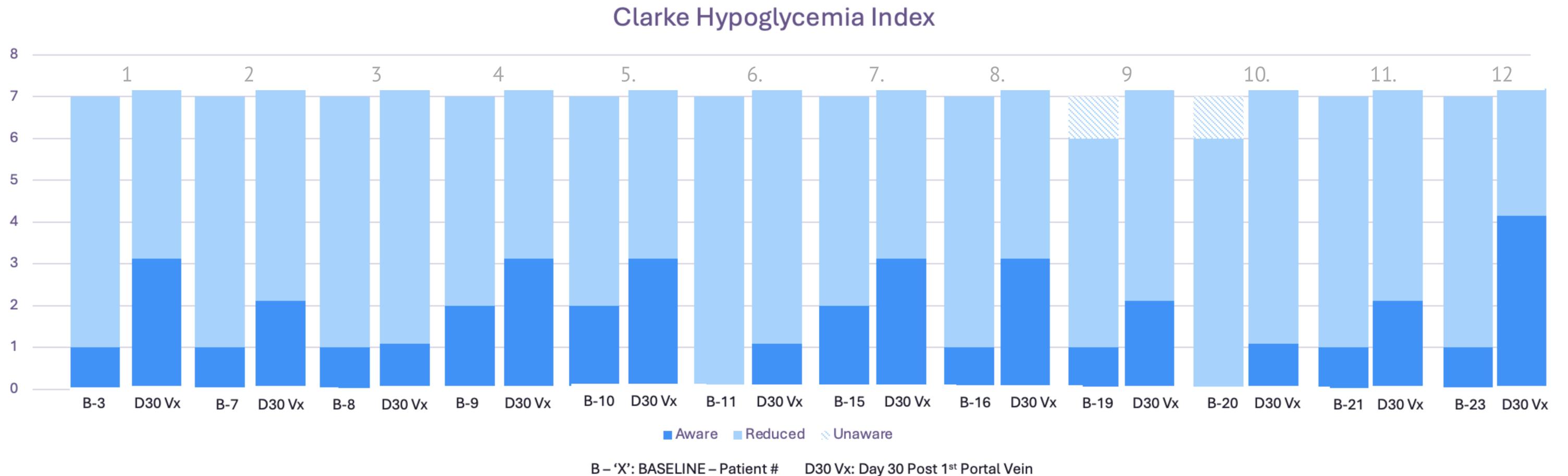
- BETA-score is a system (0-8) based on fasting plasma glucose values, HbA1c, insulin independence or use of insulin and the determination of stimulated C-peptide levels and uses fasting metabolic variables to assess how well the transplanted islets are functioning
- Scores greater than or equal to 3 show positive islet engraftment and function

- Used to estimate islet graft function following islet transplantation
- Uses fasting metabolic variables to assess how well the transplanted islets are functioning
- Predicts both short-term and long-term outcomes of islet transplants, including insulin independence and the risk of graft decline
- Data shows positive C-peptide levels at fasting demonstrating positive islet engraftment and function

ALL PATIENTS REPORTED IMPROVED HYPOGLYCEMIA AWARENESS

Cell Pouch Islets and Portal Vein Islets

The Clarke Hypoglycemia Index is a questionnaire used to assess an individual's awareness of hypoglycemia. It helps determine if someone experiences symptoms of low blood sugar and whether they are aware when it's happening.

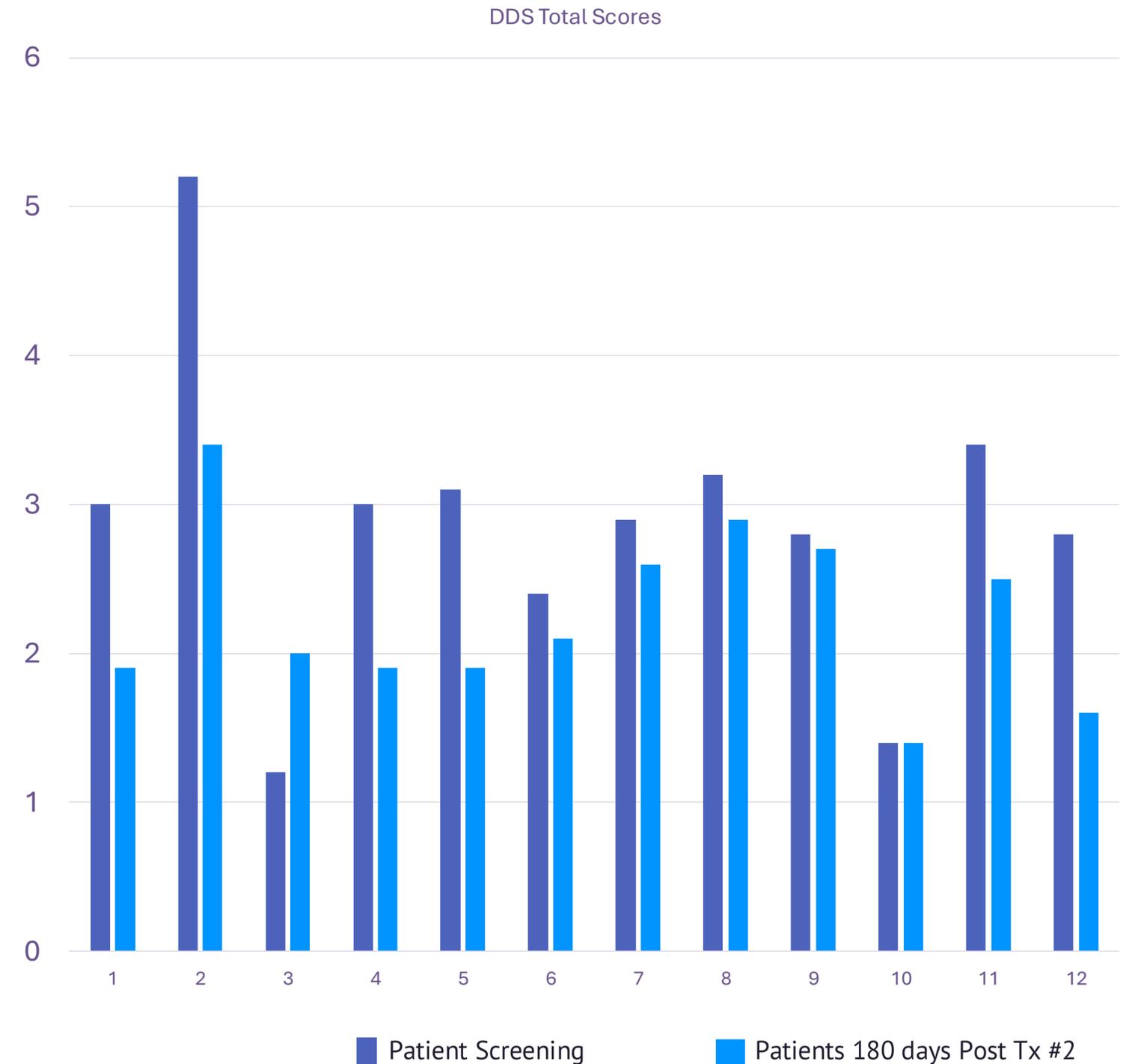


1 IN 10 T1Ds DIE OF SEVERE HYPOGLYCEMIA UNAWARENESS!

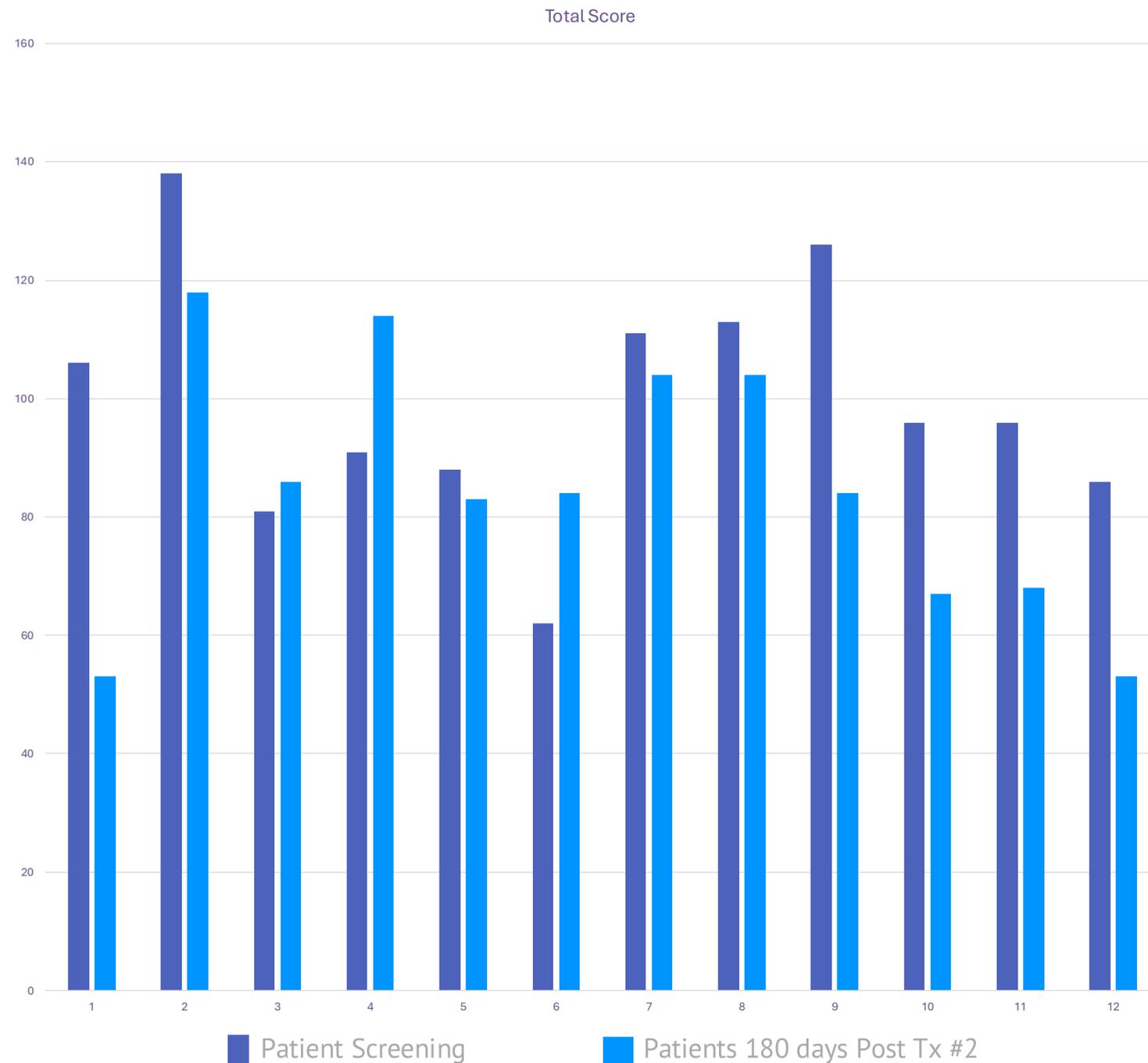
PATIENTS REPORTED AN IMPROVED DIABETES DISTRESS SCORES

Cell Pouch Islets Alone

- The Diabetes Distress Scale (DDS) is a tool used to assess the emotional distress associated with living with diabetes
- The DDS helps individuals with diabetes self-report their emotional experience of managing their condition
- 17-item questionnaire - individuals rate the extent to which they experience feelings of distress related to various aspects of diabetes management on a 6-point scale
 - 1 indicates not a problem; 6 indicates serious problem
 - Higher scores indicate greater distress



PATIENTS REPORTED A REDUCTION IN FEAR OF HYPOGLYCEMIA



- The Hypoglycemia Fear Survey (HFS) is a well-validated measure of fear of hypoglycemia in people with type 1 diabetes.
- The HFS-II consists of two subscales: the Worry scale (HFS-W) and the Behavior scale (HFS-B).
- Items are scored on a 5-point scale (0 to 4), with 0 representing "never" and 4 representing "almost always".
- HFS is scored by summing the individual item scores across both the Worry and Behavior scales. Higher scores indicate a greater fear of hypoglycemia.

Patient Willingness to Adopt Cell-Based Therapies for T1D is Overwhelming

- 2019 study found ~**75%** expressed interest in an artificial pancreas or cell-based therapy as a future treatment option (*Journal of Diabetes Science and Technology, 2019*).
- 2018 survey ~**65%** were interested in undergoing stem cell therapy. (*American Diabetes Association, 2018*).
- 2020 study **70%** reported they would consider islet transplantation or the Sernova Cell Pouch to improve glycemic control (*Diabetes Care, 2020*).
- 2017 survey across North America, Europe, and Asia found **72%** interested in participating in clinical trials for bio-artificial pancreas systems, (*Diabetes Technology & Therapeutics, 2017*).
- 2021 study ~**60%** stated they would be interested in stem cell-based treatments like the Sernova Cell Pouch (*Diabetes Therapy, 2021*).
- 2023 study reported **97%** would be willing to receive an islet delivery device (IDD), such as the Sernova Cell Pouch. (*Transplant International, 2023*).
- 2025 qualitative study on perceptions of benefits and risks of novel therapies, **100%** would adopt replacement cell therapy if available (*Diabetes Therapy 2025*).

CELL POUCH BIO-HYBRID ORGAN COMPARED TO VERTEX

Most Advanced, Vascularized, Implantable, Retrievable, T1D Cell Therapy in US Trials

	Cell Pouch Bio-Hybrid Organ	Vertex VX 880	Vertex VX 264 Trial Stopped
Currently in Clinical Trials	1 ✓	2 ✓	3 ✗
Demonstrated Insulin Independence	✓	✓	✗
Well vascularized, implantable, retrievable cell containment device	✓	✗	✗
Universal accepted blood type O- recipients	4 ✓	5 ✗	✗
Globally accepted source of ethically derived non embryonic stem cells	6 ✓	7 ✗	✗
Eliminates the risks and shortfalls associated with portal vein transfer	✓	✗	✓

1: phase 1/2 2: phase 1/2/3 3: Failed in clinic 4; Universal accepted O- blood type 5: Limited to blood type A or AB. 6: Non embryonic Stem cells 7: Embryonic derived stem cells

SERNNOVA

COLLABORATING FOR THE FUTURE



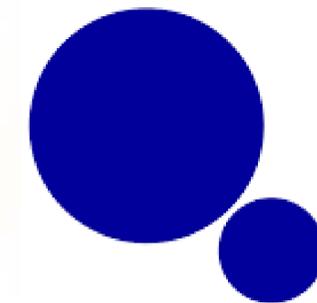


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**Collaborating To
Achieve Our
Mission**

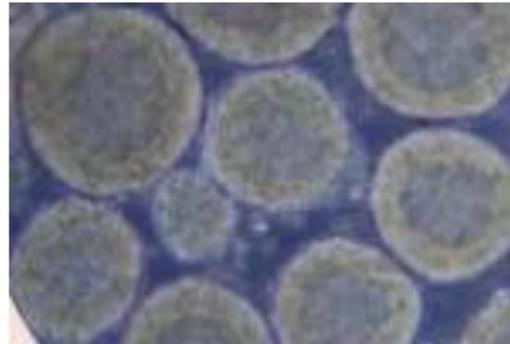


Eledon
Pharmaceuticals



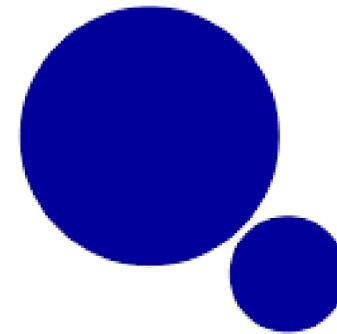
evotec

SERNOVA AND EVOTEC COLLABORATION TO COMMERCIALIZE A FUNCTIONAL CURE FOR T1D



Evotec GMP manufacturing site near Modena/Italy

- Scalable, GMP-compatible process for ILC manufacturing from a GMP iPSC line
- Drug product with completed endocrine differentiation and optimized beta cell fraction
- We target an immature (KCl responsive) beta cell state for a short manufacturing process and high product resilience
- Highly favourable pre-trial interactions with regulatory authorities



evotec

SERNOVA

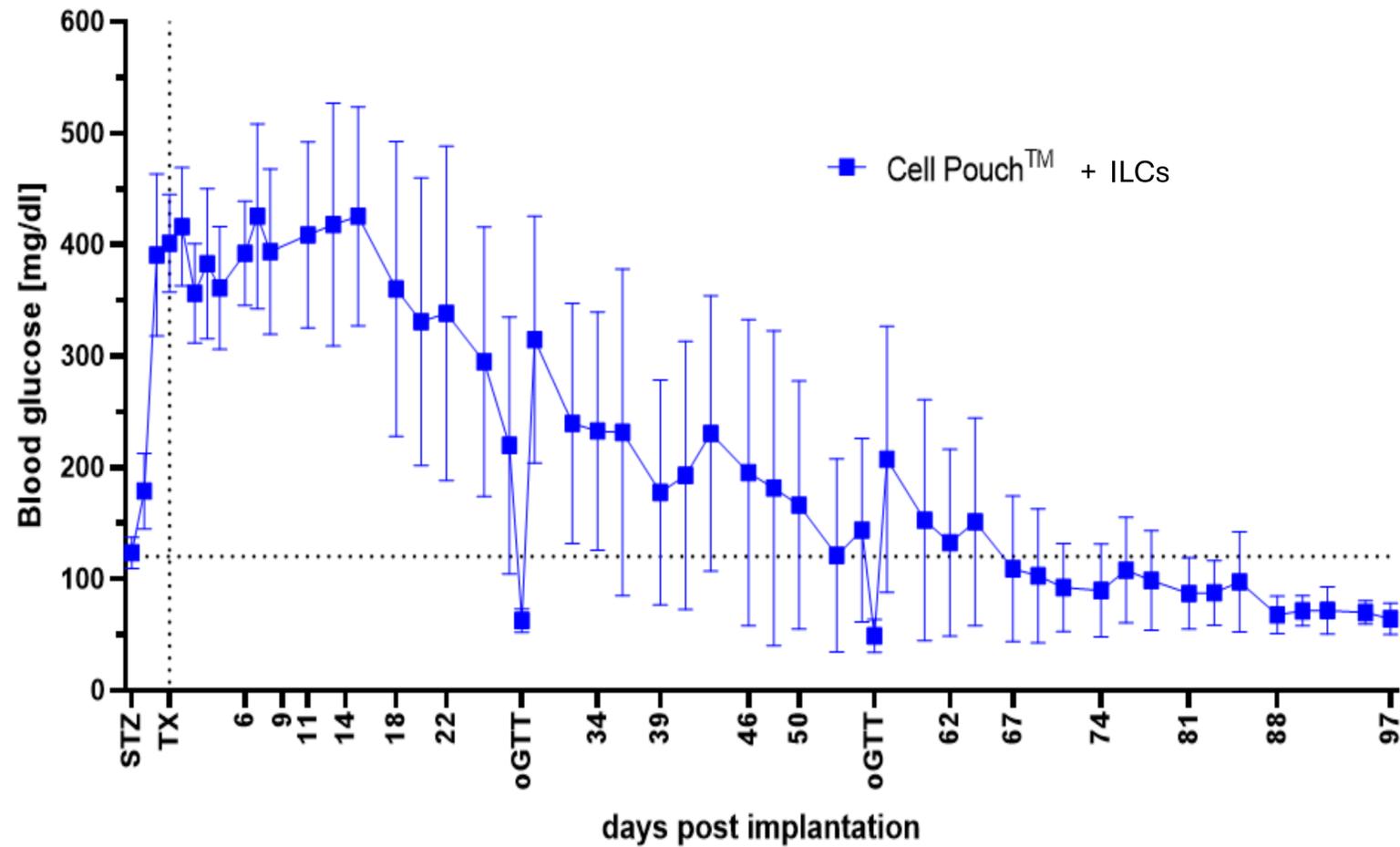
The Goal is to Combine Sernova's High Capacity Ten Chamber Cell Pouch, With High Quality, Unlimited Supply iPSC Islets Made by Evotec To Provide Insulin Independence Without A Portal Vein Top Up!

Strong Anti-Diabetic Activity of ILCs in the Cell Pouch

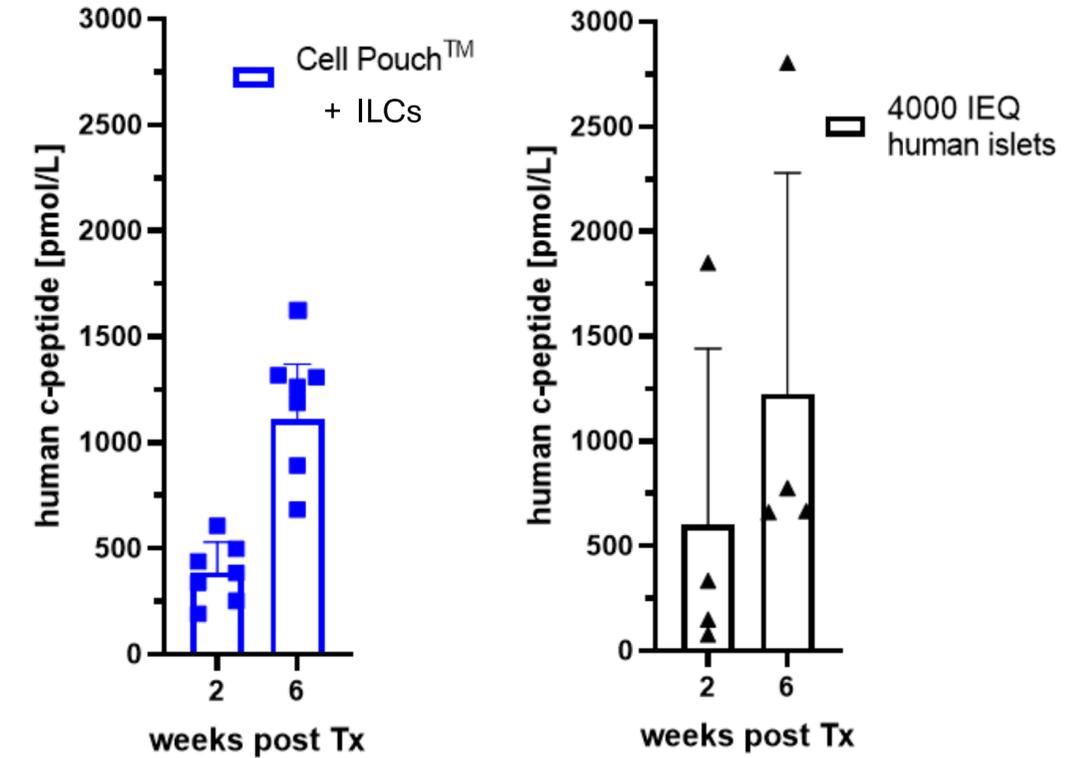
Preclinical

Selected Clinical Dose Equivalent Provides Rapid Normalization of Glucose Control with Human Islet-like Potency

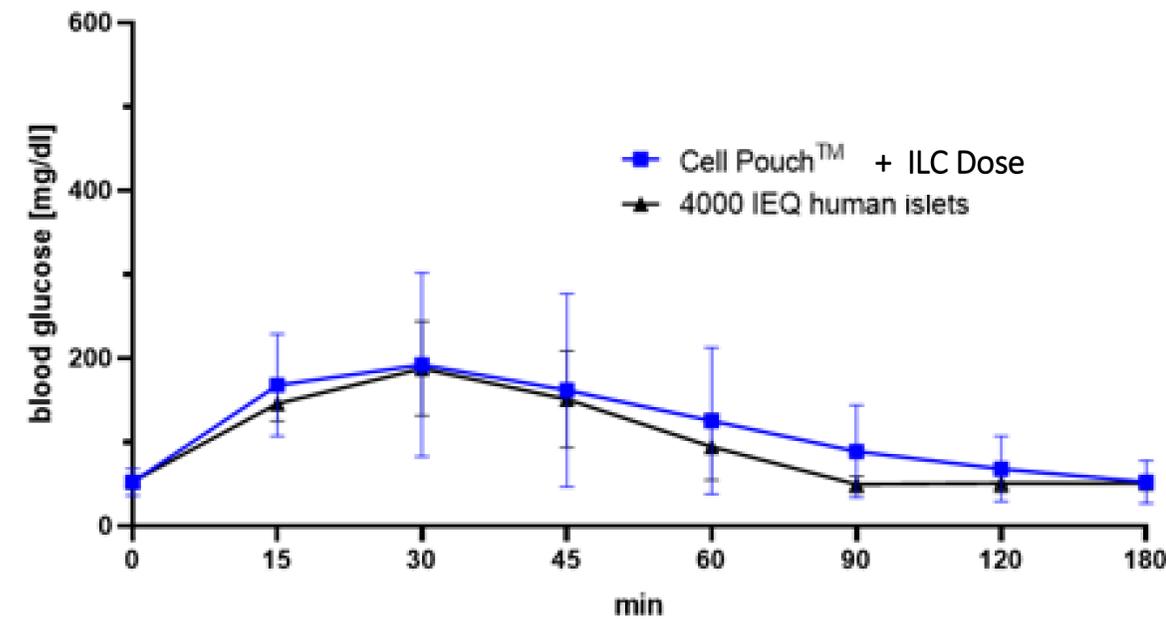
Efficient normalization of random fed glucose



Robust circulating hC-peptide levels comparable to human islets



Efficient glucose clearance in oGTT comparable to human islets at 8 weeks timepoint



TACROLIMUS – CURRENT STANDRD OF CARE IMMUNE SUPPRESSIOIN, IS SUB-STANDARD

TACROLIMUS HAS BEEN SHOWN TO CONTRIBUTE TO ISLET CELL DEATH, INCREASE BLOOD GLUCOSE AND REDUCE THE HOMEOSTASIS MODEL ASSESSMENT OF B-CELL FUNCTION

- **Impaired Insulin Secretion:** Directly interferes with islet cells insulin production
- **Insulin Resistance:** Contributes to the body's cells becoming less responsive to insulin
- **Beta-Cell Dysfunction:** Causes dysfunction of the beta cells islet insulin production
- **Pancreatitis:** Inflammation of the pancreas, can be severe and lead to diabetic ketoacidosis
- **Increased Proinflammatory Cytokines:** Increases the expression of inflammatory cytokines leading to islet dysfunction and potentially death.
- **Neurotoxicity:** Neurological side effects such as tremors
- **Nephrotoxicity:** Acute or chronic kidney damage, potentially leading to impaired kidney function.

CLINICAL TRIALS DEMONSTRATE THAT TEGOPRUBART OFFERS ADVANTAGES OVER TACROLIMUS IN SAFETY AND EFFICACY AND PREVENTION OF ISLET CELL REJECTION



TEGOPRUBART is a promising new drug monoclonal antibody that targets the CD40 ligand.



Demonstrated a better safety profile than tacrolimus, with fewer side effects like new-onset diabetes, hyperglycemia, and tremors



Data showing more effective at preserving islet function and preventing rejection compared to tacrolimus



Research is showing that tegoprubart may offer a more tolerable and effective immunosuppression regimen compared to

ISLET CELL TRANSPLANT

CLINICAL RESULTS DEMONSTRATED POSITIVE OUTCOMES IN ISLET TRANSPLANT RECIPIENTS, WITH REDUCED INSULIN REQUIREMENTS AND IMPROVED BLOOD GLUCOSE CONTROL.

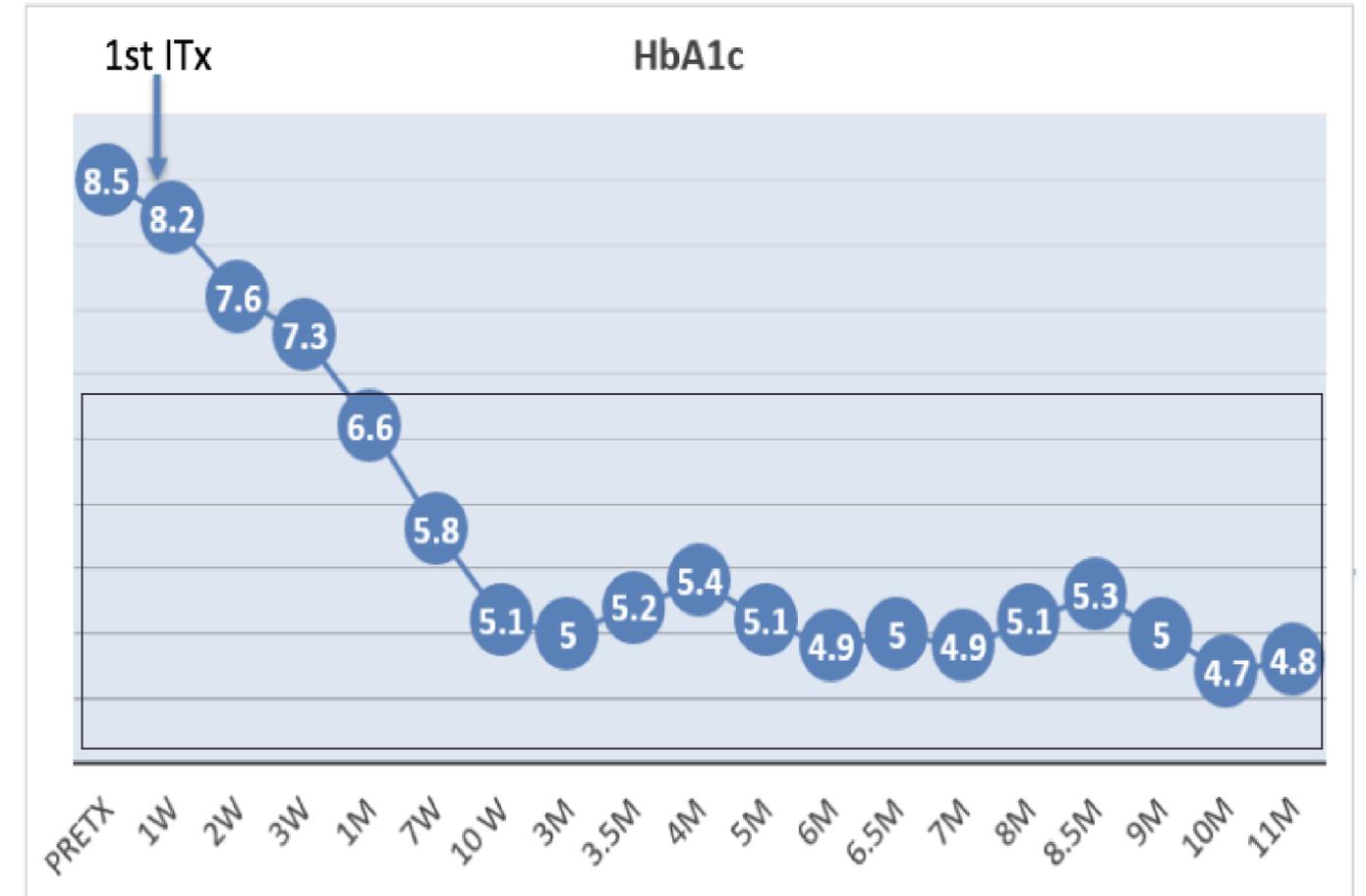
- All 3 subjects achieved stable graft function, blood glucose control in normal range and insulin independence
- No signs of cell rejection
- Safe and well tolerated

Patient 02 Follow up: 11 months

- 30 years old female
- Weight 50kg
- BMI 21

- 2 weeks after ATG patient experienced pre-transplant serum sickness and fully recovered

- **Transplant** (Day 0)
- Islet IEQ = 326,000
IEQ/kg = 6,775



Insulin free

Daily insulin use
60u 17u 15u **Insulin free**

SERNOVA

Thank You!

