



**T1D** Exchange

# ACCELERATING INNOVATION

A new model for patient care  
and the search for a cure →

# Revolutionizing patient care and the search for a cure

**35 million**

PEOPLE AFFECTED BY T1D  
WORLDWIDE

**2 million**

ESTIMATED PEOPLE WITH T1D  
IN THE US ALONE

**\$14.4 billion**

MEDICAL COST AND LOST INCOME  
IN THE US PER YEAR DUE TO T1D



Diabetes is a global pandemic, affecting nearly 350 million people worldwide. The autoimmune disease type 1 diabetes (T1D)—the chronic form of the disease in which the body does not produce insulin and individuals wage a daily war to control their blood sugars—accounts for five to ten percent of this massive problem. Unlocking the complex clues around nutrition, exercise, insulin management, and emotional health is more critical now than ever before.

→ **We need better treatments. Equality in patient care. Solutions. Fast.**

Why, after decades of T1D research, is there still so much to learn? Because type 1 diabetes is enormously complex and those who study it do not always communicate with one another directly. We need a new business model that speeds progress and connects these key stakeholders. We need to link patient outcomes to research data in logical ways. We need to bring drugs and devices to market more quickly and efficiently. We need to coordinate clinicians and bench scientists and pharma. We need to leverage social networking to bring the patient community together in powerful ways. That's a long list of unmet needs. That's why the time has come to take a new view.

That's why we created a new way to exchange information among clinicians, researchers, and people living with T1D. We are building a laboratory of life in which the sum of integrated parts is exponentially greater than even the longest list of individual efforts. Put simply, diabetes is a systemic disease that requires a systemic solution. Finally, the right organizations are working together to make it happen.

**Collaborate. Innovate. Accelerate.**

# Welcome to our world

Five years ago, we sat in a room and decided to think really big.

What kind of model would we build if nothing stood in the way? The answer: an end-to-end system with one foot in patient care and one foot in research and development.

Imagine a world in which patients, physicians, researchers, and industry all played equal roles in solving the problem of type 1 diabetes and improving patient care along the way. Imagine if knowledge flowed freely among them. That's what we did when we defined our mission: to build a dynamic, multi-purpose, real-world patient data platform designed to accelerate all aspects of drug and device development via an integrated system of people and institutions already working hard to decode different parts of the disease.

**“We celebrate the dedication of the T1D community and couldn't have taken this journey without their knowledge and support. With input from physicians, researchers, funders, and people touched by type 1 diabetes, we created a living laboratory that offers a comprehensive view of the disease. This platform, including clinical and academic research, real-world data, clinically annotated biosamples, and patient insights, facilitates better care and accelerates therapies that we can all be proud of.”**

⋮ Dana Ball, CEO and Co-founder, T1D Exchange

## → THE T1D EXCHANGE MODEL: INTEGRATED AND PATIENT-CENTRIC

T1D Exchange puts patients at the center of a comprehensive ecosystem with four key components:

### Clinic Network

An army of clinicians working in more than 65 centers across the United States who care for more than 100,000 patients

### Clinic Registry

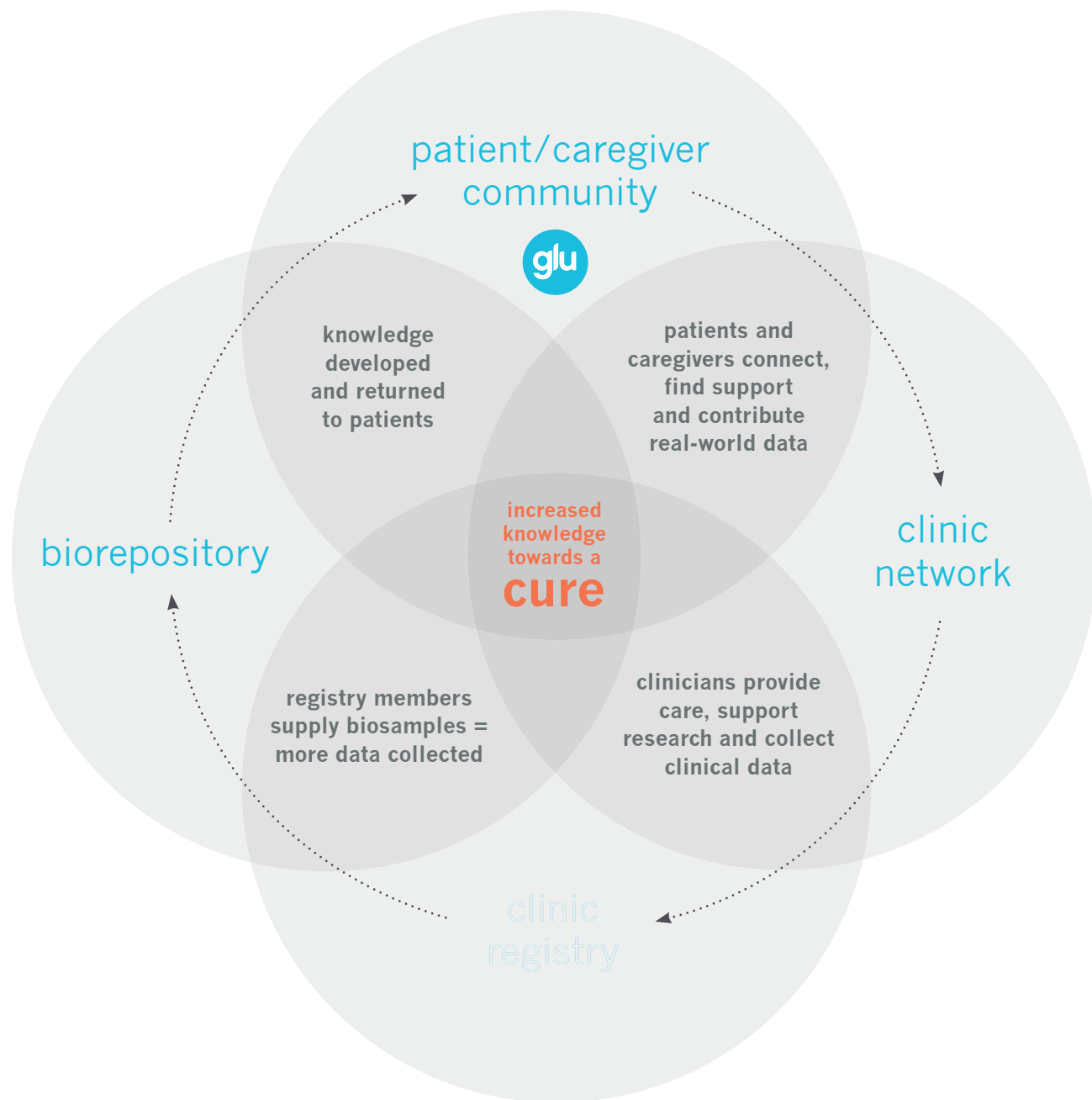
A database of comprehensive data, from 26,000+ patients, derived from the Clinic Network that spans the spectrum of age, race/ethnicity, socioeconomic status, geography, care settings, and insulin management practices

### Biorepository

A collection of clinically annotated biosamples and data developed to support researchers from academia and industry for study

### Patient/Caregiver Community

An online community of patients and caregivers who support, empower, and educate one another while participating directly in real-time research and analysis



→ **ACCELERATING PROGRESS: A sampling of our areas of interest in T1D**

- Transition from adolescence to adult care
- Non-insulin therapies
- Factors contributing to severe hypoglycemia
- Automated insulin delivery projects
- Evaluation of novel biomarkers for disease progression and predictors of complications
- Clinical implication of residual C-peptide prevalence
- Role of beta cell function in pregnant women

To learn more about our areas of interest, visit our research charter at [t1dexchange.org](http://t1dexchange.org).

# The clues are inside

People living with type 1 diabetes spend a lifetime manually managing a biological system that most of us take for granted.

Patient strategies for good health are simultaneously universal and unique—and require a revolution in the system of care that can address both. Advances in genomics, bioinformatics, and technology have created a bold, new frontier that has the power to transform breakthroughs and treatments into personalized solutions based on a combination of patient phenotype, data analysis, and basic research. We all know that this is the future of medicine.

T1D Exchange pushes this frontier even further by connecting the experience of living with the disease to the data about the disease. The result is a place where different perspectives are exchanged and faster progress is imminent.

**26,000+**

WELL-CHARACTERIZED  
CLINIC REGISTRY  
PARTICIPANTS

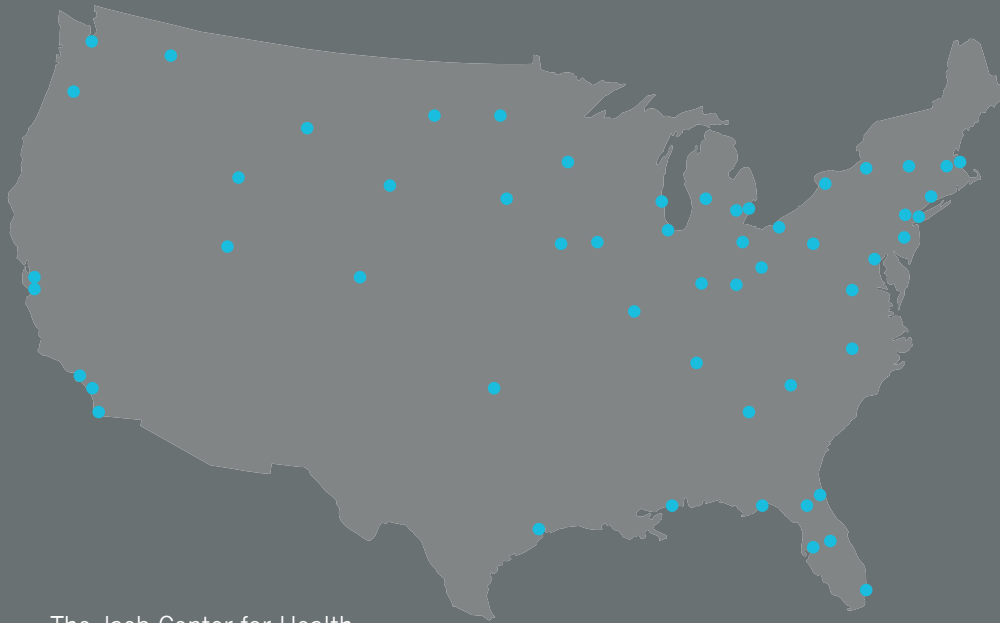
**1,000+**

PATIENTS IN  
BIOREPOSITORY

**5,000+**

MYGLU.ORG MEMBERS

UNIQUE RESAL



# 65+

CLINICS IN THE  
T1D EXCHANGE  
CLINIC REGISTRY

# 32

STATES WITH  
CLINICS, INCLUDING  
DAKOTAS, MONTANA,  
AND IDAHO

The Jaeb Center for Health Research Foundation facilitates data collection, supports study trial and design, and contracts and executes external studies.

“Today, we were grateful to be Americans, because it is now clear beyond any doubt that our country has—if not a full-blown registry—one of the richest information sources on type 1 diabetes that the world has ever seen.”

Kelly Close, Director, the diaTribe Foundation, President, Close Concerns, at the Advanced Technologies and Treatments for Diabetes meeting in February 2012

## RESIDUAL C-PEPTIDE STUDY PARTICIPANTS

AGE AT DIAGNOSIS	DURATION OF T1D BIN	CURRENT # ENROLLED
≤ 18	3–5 years	113
	6–9 years	107
	10–19 years	101
	20–40 years	107
	>40 years	105
>18	3–5 years	70
	6–9 years	66
	10–19 years	100
	20–40 years	101
	>40 years	62
<b>Total</b>		<b>932</b>

The Biorepository has been developed to accelerate research by centralizing and preserving biosamples and data for use in the translation of basic science discoveries into clinical trials and medical use. The T1D Exchange Biobank Operations Center is located at Benaroya Research Institute.

# Building the laboratory of life

Learning happens where living happens.

Critical scientific discoveries occur in laboratories every day, and yet, human experience is the most fertile laboratory of all. T1D Exchange is a personal forum for the people dedicated to type 1 diabetes. We chronicle conversations in real time, incubate discoveries, shape and share opinions, and advance medical treatments. The size and scope of our mission is huge—as is the passion of those who work here.

Getting started wasn't easy. Our big ideas required visionary philanthropists who were equally committed to making our innovative model real. That's when The Leona M. and Harry B. Helmsley Charitable Trust stepped up, providing us with the significant start-up funds needed to launch the Exchange. The bold entrepreneurial approach of The Helmsley Charitable Trust, which is the largest private funder of T1D-related research, treatment and support programs, enabled us to do what no one else has done—create a laboratory of life where the systemic riddle of type 1 diabetes can be solved faster via a comprehensive research and development feedback loop.

In the center of it all, the mission to care for T1D patients looms large. The clues to solving the disease live inside the people living with the disease and their voices make the difference. By giving them a real platform, we are poised to turn care into cure.





T1D Exchange is working swiftly toward the dream of personalized medicine. Already, the Clinic Registry data have revealed a range of findings including:

AMONG CLINIC REGISTRY PARTICIPANTS:

**9 percent**

USE A CONTINUOUS GLUCOSE MONITOR (CGM), DESPITE EVIDENCE OF SUBSTANTIAL BENEFIT FROM REGULAR USE

**91 percent**

DO NOT USE A CGM

**2/3**

OF PEOPLE WHO HAVE USED A CGM STOPPED USING IT

**Most adults and children with T1D are not achieving goals for glucose control set by the American Diabetes Association.**

Racial and socioeconomic disparities exist in use of insulin pumps and in glucose control. Data show that pump use is more frequent in Whites than Blacks or Hispanics, a relationship that persists even after adjusting for socioeconomic status.

# Exchange with us

The next chapter of T1D Exchange is about partnerships.

It's about you and us. We have made huge strides in the past three years. Now, we must recruit the next generation of bold, philanthropic visionaries to advance our mission even further. We have a lot to offer you in return. Our flexible drug and device development platform is anchored in real patient data. We manage an entire ecosystem that is self-perpetuating to benefit your work—and T1D patients. Already, we have increased the pace of discovery. Already, our model has realized cost savings. We know time is money. We also know that, when it comes to a chronic disease like type 1 diabetes, every minute counts.

## 5

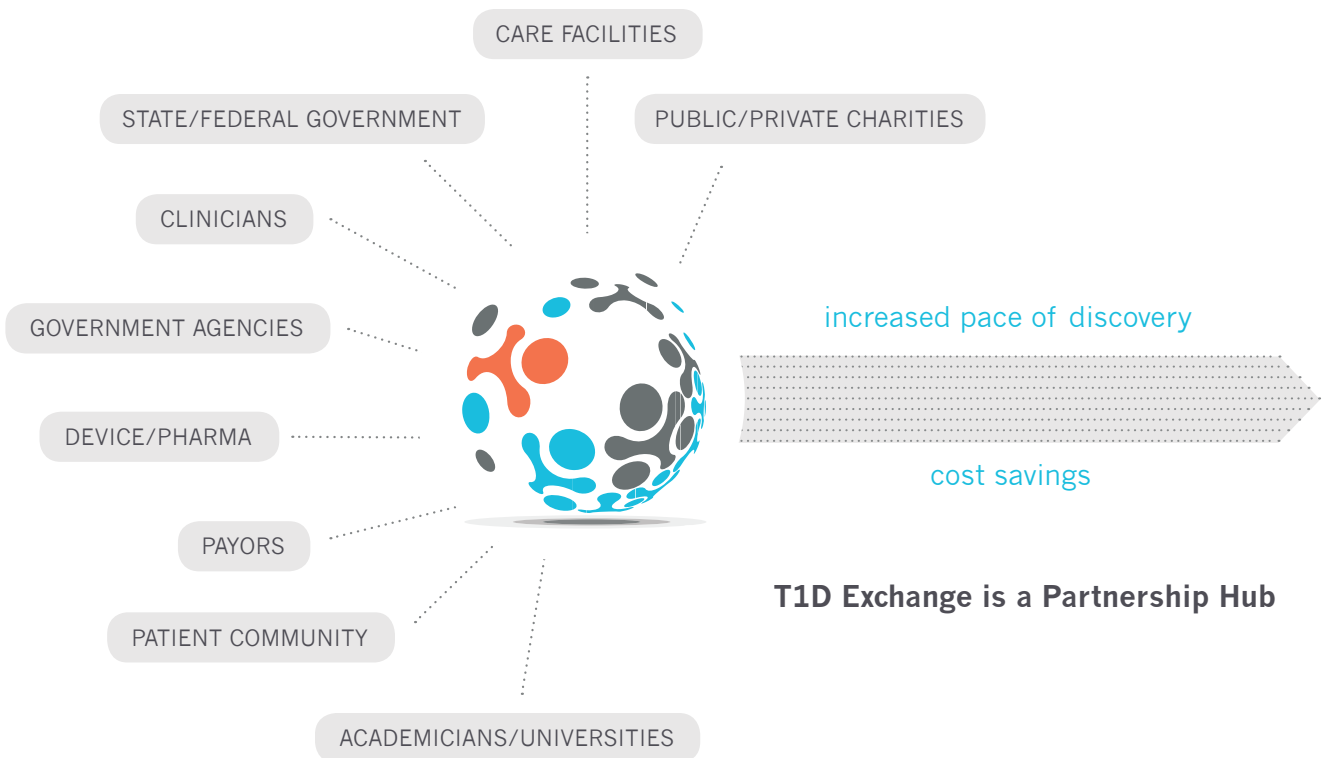
PUBLICATIONS IN  
DIABETES JOURNALS

## 32

ABSTRACTS AND  
POSTERS PRESENTED  
WORLDWIDE

## 1

GLU ABSTRACT TO BE  
PRESENTED AT ADA



## T1D Exchange has been designed to be sustainable through program activity and services. Partner with us today.

Show your support by becoming a partner of T1D Exchange through fundraising, membership, and sponsorship. Corporate and nonprofit entities have the ability to fund programs through direct project funding, grants, and gifts.

### Membership

As a T1D Exchange member your support will help us continue to maintain T1D Exchange and provide access to innovative and emerging insights into the clinical and real world type 1 information we uncover through our research activities. As a member you will receive content and event packages delivered annually.

### Sponsorship

Sponsorship involves type 1 projects, programs, and events that may be focused on education, quality of life, Glu initiatives, studies, and other opportunities based on partner interest.

### Fundraising

Individual and corporate donation opportunities are available to support T1D Exchange programs.

#### **To learn more, please contact:**

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