



# T1D Exchange

In this issue of the T1D Exchange Participant Newsletter:

- Willing to donate a blood sample at a local lab to help speed type 1 diabetes research efforts?
- Join the T1D Exchange Biobank Study today Learn about the Beacon Hill Study of the Bionic Pancreas as presented by Glu
- Discover the new studies that are available through the T1D Exchange Clinic Network: Severe Hypoglycemia in Older Adults with T1D & Metformin Therapy in Overweight Adolescents with T1D

## The Living Biobank: Your T1D community taking action!

The Living Biobank is the T1D Exchange's effort to generate valuable data and biospecimen resources for the research community. By centralizing sample collection and distribution, we can speed research progress and impact lives. Participants who complete a blood draw will receive a \$25 stipend.

Blood draws will be collected at a local lab, at no cost to the participant.

You are invited to get involved and ask any questions by contacting the T1D Exchange Biobank Operations Center at Benaroya Research Institute at 1-877-280-5345 or [biobank@benaroyaresearch.org](mailto:biobank@benaroyaresearch.org).



## Glu: T1D Research in Action!

Have you checked out Glu ([myglu.org](http://myglu.org))? Glu is an online community of over 7,000 people living with type 1 diabetes (T1D), their caregivers, and supporters. Our site

brings together the best of social networking and research to create a vibrant platform where people can connect with other members, participate in research, and learn from the community.

This month we share first hand experiences from Glu's very own Community Manager, Bill Woods, highlighting his participation in the Beacon Hill Study of the Bionic Pancreas. He says, "This is the next big thing. It gives me assurance, where before I had to cross my fingers and hope for in range BGs."

Bill shares his day-to-day experience in the study with several articles and videos. Find out why two t:Slim pumps, a Dexcom G4 sensor, iPhone, and an algorithm had Bill begging to keep this fully automated diabetes management device.



Join us by signing up on [myglu.org](http://myglu.org)!

# T1D Exchange Clinic Network

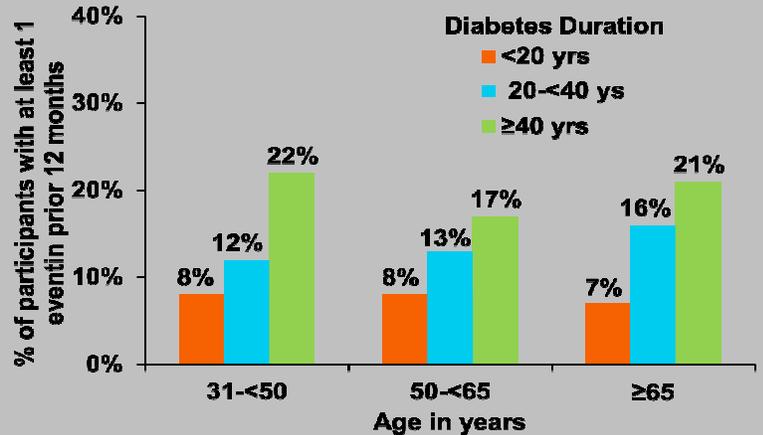
- 26,180 participants are currently enrolled in the T1D Exchange Clinic Network
- The Residual C-peptide Study continues to evaluate how long some individuals with T1D have at least some insulin production
- New studies: Severe Hypoglycemia in Older Adults with T1D and Metformin Therapy in Overweight Adolescents with T1D  
Additional details for each study are covered below.

## Severe Hypoglycemia in Older Adults with T1D

A surprising finding in the T1D Exchange clinic registry is how often severe hypoglycemic events associated with seizure or loss of consciousness (SH) occurs in older adults with T1D. As can be seen in the figure, the frequency of one or more SH events within 12 months increases with longer T1D duration, especially in those with duration  $\geq 40$  years.

In order to develop a better understanding of why SH occurs so frequently in older adults, the T1D Exchange Clinic Network has begun a study to identify factors associated with severe hypoglycemia in older adults.

The study will include about 200 individuals with T1D who are at least 60 years old and have had T1D for at least 20 years. About half of the participants will have had a severe low blood sugar in the past year. The other half will not have had a severe low blood sugar in the last 3 years. Study assessments will include determination of frequency of hypoglycemia using a continuous glucose monitor, measurement of C peptide level, cognitive testing, vision testing, and questionnaires evaluating hypoglycemia fear and unawareness, hyperglycemia fear, frailty, social support, math skills, and functioning capabilities of a usual day. If you are interested in participating, please contact your study doctor's office to see if they are involved in this study and whether or not you may be eligible.



## Metformin Therapy in Overweight Adolescents with T1D

The T1D Exchange clinic registry has shown that adolescents tend to have worse blood sugar control than younger children or adults. This can be seen in the figure showing HbA1c levels by age. In addition, the registry data show that about 40% of adolescents are overweight or obese. Overweight individuals with T1D tend to require higher doses of insulin and the insulin may not work as well to lower blood sugar levels.

Metformin, an oral medication that is used commonly to lower blood sugar in individuals with type 2 diabetes, may help the body respond better to insulin. Some small studies have suggested that metformin also might help individuals with T1D who are overweight and use large doses of insulin.

The T1D Exchange Clinic Network has launched its' first randomized clinical trial to find out if metformin can improve blood sugar control in overweight adolescents with T1D when taken in addition to standard insulin therapy. The study will include about 150 12 to 19 year olds. If you are interested in participating, please contact your study doctor's office to see if they are involved in this study and whether or not you may be eligible.

