DREAM CATCHER NEWS

MN Lions Diabetes Foundation, Inc.

***"Catch the Dream"* Life Without Diabetes!**

www.mnlionsdiabetes.org www.facebook.com/MinnesotaLionsDiabetesFoundation

2017 Summer _____Lion Eileen Schirer Editor ____

Mission Statement

The Minnesota Lions Diabetes Foundation, Inc. (MLDF) is dedicated to improving the quality of life for people with diabetes by funding research to cure diabetes, providing education and sponsoring preventive health activities.

MLDF Diabetes Research Update Recap

Despite the tempting spring weather, more than 100 Minnesota Lions and their guests came to the University of Minnesota Twin Cities campus for the Eight Annual Lions Diabetes Research Update. This year, Lions enjoyed boxed lunches and catching up with one another in the McNamara Alumni Center.

The program formally began at 11:30 am with remarks from Chairperson, Lion Judy Loken. Judy formally presented a $75,000 check to this year's research grant recipients: Dr. Bernard Herring for his work towards developing a vaccine to prevent the body from rejecting transplanted pig islet cells; Dr. Brian Fife for his work on blocking the immune pathway in order to prevent the immune system from attacking islet cells; and to Dr. David Bernlohr for his research on the role of calcium in insulin to develop a new drug for the treatment of type 2 diabetes. Lion Judy also presented a $500,000 check as a symbol of the final payment on the Lions half million pledge for the Minnesota Lions Islet Imaging Lab to Dr. Michael Garwood.

Judy also presented two Dream Catcher Awards to ward to Bonnie Schirlinger and Thomas Johansen for their work as serving as the faces of our foundation. Lion Judy then presented the new informational video about the Minnesota Lions Diabetes Foundation entitled *Catch the Dream: Living Without Diabetes* which features Bonnie and Thomas. You can watch the video here: https://www.youtube.com/watch?v=f8KjbORhoP4&feature=em-share_video_user

During the research update section of the program, the Lions were able to learn more about the research projects currently receiving funding.

*First to present was Dr. Herring, who provided a general overview of diabetes including the difference between type 1 and type 2. In type 1 the body can no longer produce insulin because the insulin producing islet cells in the pancreas have been destroyed. In type 2, the body becomes insulin resistant. Dr. Herring, whose research is focused on type 1 diabetes, has had much success reversing type 1 diabetes with the transplantation of pig islets into monkeys. Monkeys receiving transplanted cells demonstrate a long-term diabetes reversal and extended survival rates. Dr. Herring's next goal is to create a vaccine that prevents the body from rejecting these transplanted islets. These vaccines remove, with the precision of a laser, the tiny part of the immune system that is activated by foreign antigens from the pig donor. When fully successful, the vaccines will eliminate the need for chronic immunosuppression otherwise required to prevent rejection of transplanted islets. Dr. Herring concluded with," Science is no longer limiting us. It is a very exciting time in diabetes research."

Next to present was Dr. Fife, an immunologist, whose work is focused on targeting the immune cells that cause type 1 diabetes. In order to cure type 1 diabetes, we must identify, remove or control the

Tcells that are inadvertently killing the insulin producing islet cells. With funding from the Lions, Dr. Fife has developed a way to identify, track and interrogate these T cells in both mouse models and humans. Considered as Phase One of the project, Dr. Fife's team is now generating novel antibodies that can limit these T cells and prevent them from becoming activated in the first place. If the T cells are blocked and cannot from become activated, beta cells will not get destroyed and thus neutralize the T cells causing diabetes.

Dr. Paul Wang, an MD and PhD candidate and advisee of Dr. Michael Garwood of the Center for Magnetic Resonance Research, spoke next about the research at the Minnesota Lions Islet Imaging Center. Dr. Garwood, Paul and others are working on a cure for type 1 diabetes by implanting a bioartificial pancreas, which they created, into a person's forearm. This bioartifical pancreas, after being implanted, replaces and restores the function that the person's own islet cells that have been destoyed due to type 1 diabetes, thus curing their disease. Supplemental oxygen is critical for implanted islet survival inside a bio-artificial pancreas. They have developed an oxygen delivery system for use with rats and are in the process of developing a miniaturized oxygen delivery device for human use.

Last to present, was Dr. Bernlohr, who spoke about his research on the role of calcium in insulin as a new drug for the treatment of type 2 diabetes. Bernlohr's lab is using the newly discovered SERCA activator as a new drug for the treatment of type 2 diabetes. SERCA is a calcium pump and Dr. Berhnlohr has discovered that calcium is misregulated in the context of diabetes. Using obese insulin resistant mice, the SERCA activator drug (CDN1163) has successfully lowered cytoplasmic calcium in fat cells which protects those cells from dying, thereby improving their metabolism. This has the effect of increasing insulin action and reducing insulin resistance. *All of the researchers expressed their gratitude to the Lions for their critical support that has made a tremendous difference in the lives of so many.*

LCI Forward

To all Lions who are attending the LCI Convention in Chicago – There is a Strides Diabetes Awareness Walk hope you can attend. Also visit with the LCI Health Coordinators – Let them know how important the support from LCI is to us, so we can promote diabetes education in our communities.

Alert!Day was held 3 days in two Cub stores in Minneapolis. Lions participated to bring attention to diabetes.

reTHINK your drink – every sip counts!

How much sugar is in you drink? One sugar drink alone can max your daily limit!
https://rethinkyourdrink.minneapolismn.gov/
FACT: Your body needs Zero sugar.
-Find the sugar on the label
-Locate the serving size. If container has more than 1 serving, multiply sugar by number of servings.
-Total grams of sugar divided by 4 = teaspoons of sugar in that drink.
Maximum daily sugar limits: Age 2 – 18 or Adult Woman is less than 24 grams, Adult man is 36 grams

Mark Your Calendars ----

-Tour de Cure – Mpls June 3rd
www.diabetes.org/twincitiestourdecure
-Governors Cub Golf June 13th at Whispering Pines Annandale, MN
-"Swing for a Cure" June 16th Frazee Golf Course
- June 9th Golf for Diabetes Sherburn/Jackson Lions

See MLDF Website for details on events.