JASMINE, SANTA BARBARA ZOO’S, GIBBON LIVING WITH DIABETES USES NEW DIABETES TECHNOLOGY

(February 28, 2020) Santa Barbara, CA - Jasmine, a female white-handed gibbon living with diabetes, at The Santa Barbara Zoo was one of the first zoo animals to wear a Continuous Glucose Monitor (CGM) to help manage her type 2 diabetes. A CGM is a device that tracks glucose levels throughout the day, and takes glucose measurements at regular intervals, and sends the glucose readings to a device that reads the data. Like humans, mammals also live with diabetes, and veterinarians and zookeepers at the Santa Barbara Zoo are using this device to better and more precisely manage Jasmine’s blood glucose levels.

Jasmine, who arrived at the Zoo in 1979, is a geriatric gibbon at age 42. She has been living with type 2 diabetes for the last three years. Jasmine’s type 2 diabetes is managed with oral medication and strict dietary management, and the only way for the keepers to monitor her glucose levels has been by testing her urine daily or every few days, which is not a reliable method and provides limited information about her blood glucose status. The Zoo’s veterinarians decided to implement the CGM system to better understand Jasmine’s blood glucose levels over the 24 hour period to gain valuable information to help control her diabetes better, and improve the quality of her life.

"Uncontrolled diabetes causes serious health issues, so it is very important that we can measure and manage her blood glucose levels. Continuous Glucose Monitoring allows for optimal management of diabetic patients, and has really helped in Jasmine’s case” explained Dr. Julie Barnes, the Zoo’s Vice President of Animal Care and Health.

The CGM device Jasmine wears is the FreeStyle Libre, a CGM system that is designed to help those living with diabetes. Sansum Diabetes Research Institute (SDRI), located in Santa Barbara, is a global leader in diabetes research, and SDRI is known for its expertise in CGM research. SDRI has been on the cutting edge of diabetes research, education, and clinical care since its founding in 1944 by Dr. William Sansum, the first U.S. physician to manufacture and administer insulin in the treatment of diabetes.

SDRI took an interest in the Zoo’s efforts to help Jasmine monitor her diabetes. SDRI was integral in the efforts for the first FDA approved glucose monitor that does not require finger sticks, the FreeStyle Libre system. Dr. Kristin Castorino, Senior Research Physician at SDRI, stated “The goal for diabetes technology is to reduce the burden of diabetes as well as provide a better understanding of how blood sugars change. At SDRI, we are committed to conducting research that makes living with a chronic disease as easy as possible so that humans can run and play, and gibbons can swing freely.”
In order to attach the first device, they did so while Jasmine was anesthetized for a routine health checkup, and the monitor only worked for 3 days. It was unclear whether the monitor was damaged, malfunctioned or just did not work in gibbons, but the animal care and health team was determined to continue trying. They attached a second monitor, which successfully lasted the full two-week period, providing Jasmine’s veterinarians with valuable data and a better understanding of her blood glucose levels and trends.

Managing type 2 diabetes in animals presents many challenges but even more so when dealing with a primate. There’s also the added curiosity from her new companion Bono, who recently joined her on Gibbon Island. “We tried the CGM device on Jasmine prior to Bono’s arrival, so the next time we get a device on her, Bono may be very curious as primates typically are, and he may mess with it or pull it off her,” shared Barnes.

“Now, we’re in the process of training Jasmine to voluntarily allow us to put on the monitor to avoid having to sedate her each time,” explained Barnes. “The oral medication is not controlling her diabetes as well as it did in the past, and we may have to start giving her insulin to control her blood glucose levels. Having Jasmine wear the CGM device regularly would be extremely helpful when we start her on insulin and find the optimal type of insulin and dose for better long-term management of her diabetes.”

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About Sansum Diabetes Research Institute

Sansum Diabetes Research Institute (SDRI) has been on the cutting edge of diabetes research, education, and clinical care since our founding in 1944 by Dr. William Sansum, the first U.S. physician to manufacture and administer insulin in the treatment of diabetes. With an established world class reputation for innovation in the field of type 1 diabetes including the Artificial Pancreas system and diabetes in pregnancy, SDRI is broadening its area of expertise to address a range of issues in type 2 diabetes in an effort to address this growing epidemic. Learn more at www.sansum.org.

About The Santa Barbara Zoo

The Santa Barbara Zoo is open daily from 10 AM to 5 PM; general admission is $19.95 for adults, $11.95 for children 2-12, and free for children under 2. Parking is $11. The Santa Barbara Zoo is accredited by the Association of Zoos and Aquariums (AZA). AZA zoos are dedicated to providing excellent care for animals, a great visitor experience, and a better future for all living things. With its more than 200 accredited members, AZA is a leader in global wildlife conservation and is the public’s link to helping animals in their native habitats. Visit www.sbzoo.org.