## **MoRobinBarryStories**

## **BEE GEE BRIGADE....JOIN THE FIGHT**

Posted on February 21, 2015 by morobinbarrystories

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Above is a photo of Barry and Linda Gibb with Gary Kleiman, the Executive Director of Medical Development at the Diabetes Research Institute. (For those who have not read the previous story about Barry and Gary, check it out on the front of GSI website or on this blog January, 2014). This photo was taken at the Love and Hope Ball on Valentine's Day. We all look forward to the pretty pictures from the Ball, but we often forget why Barry and Linda are present at this event year after year. After a nearly 40-year friendship with Gary and the DRI, Barry and Linda's dedication to this charity inspires me to continue to spread awareness to fans. Gary's battle with Type I diabetes continues, and he possesses courage and determination that I doubt I could muster if faced with the same challenge.

I recently made another visit to the DRI (seen above) to touch base with the scientists, who all refer to "the fight" against diabetes and their determination to find a cure. They are the soldiers on the front lines, working tirelessly to stop this insidious disease. I titled this piece BEE GEE BRIGADE because I envision fans in every country joining with the many researchers around the world who are part of the Cure Alliance. Each and every one of you can make a difference,

and I urge you to visit their website and Facebook page and take up the fight to support these brilliant and talented scientists.

In the next several days, I will post updates on what the Diabetes Research Institute scientists are doing now and share photos from my visit. I again walked away shaking my head in awe, moved and excited about what the DRI and every member of the team is doing to help those afflicted with this disease. I hope you will be encouraged to take action and follow in Barry and Linda's footsteps as supporters for this most worthy cause.

## BEE GEE BRIGADE #2.....NO WONDER BARRY AND LINDA HELP

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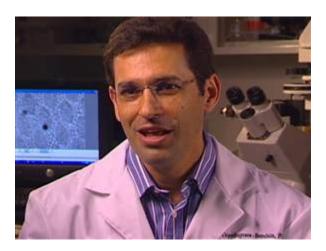


Barry with Dr.Camillo Ricordi at the Love and Hope Ball

Continuing with my reports on Barry and Linda Gibb's charity, it was inspiring to visit the Diabetes Research Institute once again and meet with scientists from all over the world.

I'd love to tell you all about these brilliant minds at work, but I'm going to step back for a minute and give some background info. If you are not directly affected by diabetes, you might not know how a Type 1 patient becomes a diabetic. Here's the scoop. The healthy adult pancreas produces a million islet cells. Islets are actually clusters of cells (3 to 4 thousand). Within each islet are several types of cells that work to regulate blood sugar. One is the BETA cell. Beta cells sense sugar in the blood and release insulin to maintain normal blood sugar levels. The immune system sees BETA cells as a potential danger and destroys them, causing Type I diabetes.

The loss of these cells means the body can no longer produce insulin. The DRI focuses on restoring natural insulin production, and one key strategy is islet transplantation, taking healthy islets from a donor pancreas and transplanting them into patients with diabetes. So now that you know a bit about what needs to be done to help the patients, let me introduce you to one of the key players in the research at DRI.



Dr. Juan Dominguez-Bendala is Director of the Stem Cell Development and Translational Lab at the DRI. I was lucky enough to chat with him for a few minutes when he stopped by Gary Kleiman's office to say hello. Taking time out from his extremely busy schedule, he sat with me and was just as passionate and focused as his other colleagues about his work at the DRI. A Spaniard, Juan left Spain to do a Master's in applied molecular biology and biotechnology in London and spent a summer in Scotland, spending time at the Roslin Institute In Edinburgh where Dolly sheep had been cloned. He did his Ph.D there under the supervision of one of Dolly's creators. He witnessed firsthand the techniques of stem cell research. He wanted to apply his valuable training to cure disease and chose the Diabetes Research Institute as his workplace. How fortunate for us all that he did so.

A father of two young children (and a very snappy dresser), Juan talked about being with the DRI for fourteen years and the progress he and his fellow scientists are making in the fight against Type I diabetes.

Stem cell research is advancing rapidly, and he has been working with embryonic stem cells and the issue of safety. He and his colleagues are genetically engineering embryonic stem cells so they contain "suicide genes" that will kill cells that keep dividing or don't produce insulin. There are several other developments in his wheelhouse, but one he is very excited about is the discovery of the role that oxygen plays in the development of insulin-producing cells in the maturation of cells in the lab. "We developed a device called the "oxygen sandwich" which provides maturing cells with an oxygen environment that's more like their native pancreas. As a result, maturing cells in the "oxygen sandwich" produced 30 times more insulin than those in traditional plastic culture containers, creating a greater supply of islet cells for transplantation

Needless to say, I was mesmerized by Dr. Dominguez-Bendala and felt incredibly undereducated at the moment, but I was thrilled that his passion gave me hope for everyone who suffers and

struggles with Type I diabetes. His large hands and long fingers gestured enthusiastically, and his animated facial expressions reflected the love of his work.

Knowing that islet transplantation works is one thing. Now applying this technology so that all people can benefit is the key, but there is a shortage of insulin=producing cells available for transplant. Ok, Dr. Juan, I am in ready to cry and emotionally charged by your dedication and determination. As he said, "Stem cells offer hope to address the issue of supply and I am personally committed to make that a reality". AMEN.