

**The Potential of an Artificial Pancreas:
Improving Care for People With Diabetes**

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Good morning, Senator Collins and distinguished members of the Committee. Thank you for the invitation to appear before you today. Also, thank you for your tireless leadership, Senator Collins, in championing issues that will get us to our shared goal of a cure.

My name is Chris Dudley and I played in the NBA for 16 years with Cleveland, New Jersey, Portland, and New York. I am the proud husband of a beautiful wife and father of three wonderful, healthy children ages 7,6 and 4. I also have been living with juvenile diabetes for over 25 years.

In 1994 I formed the Dudley Foundation. The following year we started a basketball camp for kids with diabetes. Ever since that time, I have been an outspoken advocate for encouraging kids with diabetes to pursue their passions – whether it be sports or other activities. Our Foundation emphasizes that kids can achieve their dreams to be whatever it is that they dream of, whether it is being a doctor, professional athlete or even a United States senator – provided they take care of their diabetes. Our goal is to empower these children.

But today, I am going to talk, frankly about a dark, ever present, reality I have let few people see.

I tell children to be proactive in managing their diabetes. I tell them that they will face difficulties, but they should not let diabetes keep them

from their dreams. But what I realize and the children unfortunately have to realize: is how difficult managing diabetes actually is.

I myself have been proactive with my diabetes and have experienced difficulties. I have tested my blood sugar over 40,000 times. I exercise, eat healthy, and follow my doctors instructions. Yet, I live each day constantly worrying about what damage this cruel disease is doing to my body. I have experienced unexplained high and low blood sugars. I have administered countless injections. I have endured violent seizures. In fact one low blood sugar led to an accident in which I drove my car into a tree at 45 mph. I had just finished a workout and had taken the necessary precaution of testing my blood sugar before I started the car. but a sudden drop in blood sugar caused what's known as a hypoglycemic reaction. The blood sugar test that I had taken had showed that I had a normal blood sugar – but it did not tell me what direction my blood sugar was heading. Thank God no one was hurt.

Aside from the many challenges, I have been able to fulfill my childhood dream of playing professional basketball. I have walked onto the court to hear 20,000 cheering fans. The feeling is incredible. But the ever present dark side was there. Even though I had tested my blood sugar 14 times each game day, the current technology of fingerstick testing didn't

give me the complete picture. It only gave me my sugar level at a particular point in time, not the all important information of what direction my blood sugar was heading. I would step onto the court and pray my blood sugar would not drop at which point I may experience loss of equilibrium, light headedness, double vision or most feared, a seizure. Thus the need to continually check to see how it was changing. Talk about a buzz kill. This is a cruel inexact disease.

The good news is, there is hope. There is technology that can help diminish this darkness. This reality is why I am so excited about today's hearing and about the promise of new technologies, like the continuous glucose sensors, to help people manage their diabetes until we find a biological cure.

If I had a continuous glucose sensor when I was in the NBA, I could have seen the trends in my blood sugar levels and taken proactive action to keep myself in better control. It would have been invaluable.

As a potentially life saving feature, a sensor would have alarmed me that I was getting low while driving, giving me the chance to pull my car off the road and avoid an accident.

From what I know about continuous glucose monitors, they enable parents to set the device so it alarms when a child's sugar level goes too high

or too low, giving parents peace of mind and the ability to sleep through the night and not have to awaken once or twice a night to test their child's blood sugar for fear of a hypoglycemic reaction. Many of our camper's parents only get to sleep through the night one week a year. When their kids are at our camp.

A lot has changed since I was diagnosed with diabetes, and I am excited about new technologies that will help people to better manage their diabetes and hopefully avoid the devastating complications that occur over time. Ultimately, what we all want is a cure, but improvements in care along the road to a cure would make a tremendous difference to so many people who struggle every day and it is incumbent upon all of us to do our part to help accelerate progress on both fronts.

I'd like to close by reading an excerpt of a letter recently sent to me from a teenage boy who attended my camp in August:

After camp each year, I return to my home in Three Rivers, California, a community of 3,000 in the southern Sierra foothills. I have always been the only one in my school with Type 1 diabetes. In my elementary school, there was no school nurse. Each year since I was diagnosed with diabetes in the spring of my third-grade year, my mom and I would educate my current teacher, as well as the office staff, about Type 1 diabetes and what to do in the event of an emergency. As of the 2006/2007 school year, I am a junior and travel 20 miles each day to my high school. There is a school nurse on the campus one day a week and most of my teachers aren't even aware I have diabetes. My basketball and baseball coaches are informed that I have the disease, but most are not knowledgeable about it. During my first season of playing tackle football, my coaches did not give me playing time because they thought I was "sick."

My parents are self-employed, and the medical costs have proven to be staggering and never-ending. Their monthly health insurance costs – including supplies not covered --

are in excess of \$1,000 per month for our family of four. Ironically, there are new products coming onto the market that could ease some of the burdens of having Type 1 diabetes, but they are cost-prohibitive and our insurance company won't provide coverage on certain brands or products.

No child deserves to live with Type 1 diabetes with its risks of debilitating complications looming over them their entire life. And, at a cost of more than a half-million dollars in their lifetime for medical supplies and care, no child should have to pay that price either.

Senator Collins, thank you again for this opportunity – it has been an honor to appear before you today. I worry every day that one of my kids will be diagnosed with juvenile diabetes. And even though I have been very blessed in my life and have been able to achieve great things even with diabetes, this is not the life I want for my children. I want this cure for the children who come to my camp, my children, and all of the kids who are afflicted with this disease.