

JDRF Gives a 'Tremendous Boost' to the Artificial Pancreas Project

By David Mendosa

The continuous glucose sensors of today that will in time lead to development of an artificial pancreas are getting a tremendous boost from the Juvenile Diabetes Research Foundation International (JDRF). The boost is the organization's commitment of up to \$6.5 million dollars this year and next.

This puts the JDRF's money where its mouth is. Until now, it has focused largely on advocacy efforts in Washington, D.C., and across the country.

The first component is the insulin pump. The second is the continuous sensor. And the third, which looks now to be the most challenging, is the algorithm or computer software that connects and controls the first two.

One of the JDRF's goals for their millions in funding is to help develop a thriving market.

"The more companies, the more interest in diabetes technologies leading to an artificial pancreas, the better the ultimate product will be," Kowalski says.

He says there are three frontrunners in continuous sensing. The first is Medtronic Diabetes, which is already selling its Guardian RT. Abbott Diabetes Care has asked the Food and Drug Administration for approval to sell its FreeStyle Navigator. Likewise, DexCom is now seeking FDA approval for its STS continuous glucose monitoring system. (Full disclosure: I own stock in DexCom.)

These same companies are also the frontrunners in developing an artificial pancreas. "Medtronic and Abbott have both of the pieces," Kowalski says. "DexCom, pairing with any insulin delivery system, could easily do that. And that's their long-term goal."

Tying continuous sensing to insulin delivery will be a "mega step" forward, Kowalski believes. "We are on the cusp of a revolution in diabetes care."

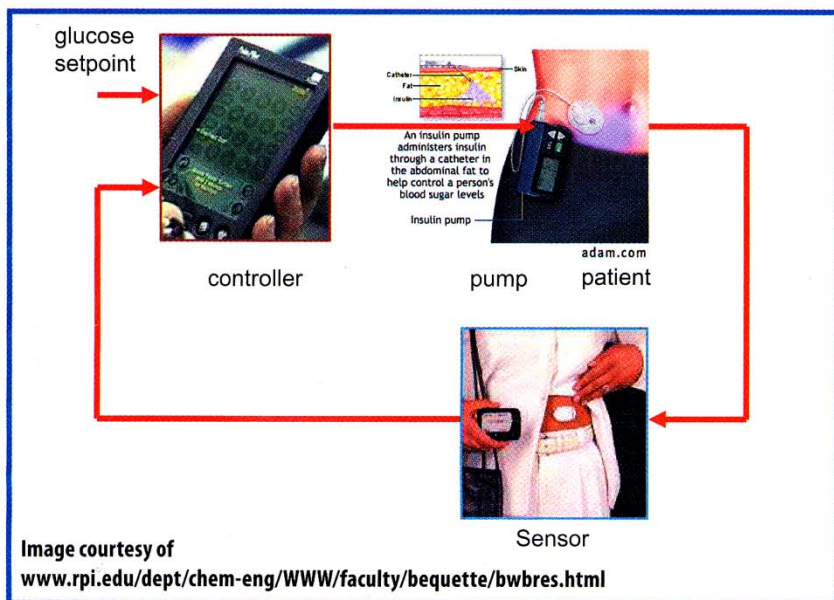


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The new effort will fund research on two parallel tracks. The point of the continuous glucose sensing track is to get this technology out to the people who need it, says Aaron Kowalski, PhD, the JDRF's strategic research projects director.

"This could be research that shows the value of glucose sensing, that it improves health outcomes and is worthy of insurers paying for it," Kowalski says. "These technologies add value."

The second track will support research leading to an artificial pancreas system that people will use in everyday life. An artificial pancreas depends on three components.

The JDRF's Constituency

How much will people with type 2 diabetes benefit from the JDRF's efforts? Probably a lot, even though its constituency is people with type 1 diabetes.

"The market for type 1s probably won't drive the kind of advances that we want to see," Kowalski tells me. "With this expanded market, there will be more incentives for companies to further invest in improving their technologies."

One of the key components of the JDRF's plan is to encourage wide accessibility of technology for all people with diabetes, he says. Not only type 1s. And not only the wealthy. **DM**