



New Approach for Diabetes Patients Moves to Clinical Trials

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[Diabetes Care](#) A new procedure that may lead to a cure for type 1 diabetes has received approval from the Food and Drug Administration to be tested in patients



TOOLS OF TOMORROW: Pictured above DRI researchers view islet cells. Photo: DRIF

For years, researchers have been transplanting islet cells into the liver, allowing those with diabetes to produce their own insulin and other hormones in response to blood sugar levels.

Some patients who have received islet transplants have been living without the need for insulin injections for more than a decade. However, over time, many of the cells are lost and patients must resume insulin therapy.

Discovering new possibilities

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Studies have shown that the liver is not an ideal home for the insulin-producing cells due to several reasons. So, researchers are looking to other areas of the body and are now set to test the omentum, the inside lining of the abdomen, as a new transplant site.

“The omentum is easily accessed surgically, contains a large network of blood vessels, and has many other beneficial properties,” says Camillo Ricordi, M.D., director of the Diabetes Research Institute at the University of Miami, where the clinical trial will take place. “We believe that implanting islets in the omentum will lead to superior outcomes for patients with type 1 diabetes.”

Natural solutions

Another advantage of the omentum is that it can be an excellent site for the DRI BioHub, a bioengineered mini organ containing islets and other vital components that keep the cells healthy and able to control blood sugar levels long term. Unlike mechanical devices that are used to manage the disease, the BioHub is a biological solution for restoring natural insulin production.

“The progress in islet transplantation has allowed us to get to this important juncture. The BioHub approach could move biological replacement strategies for the cure of diabetes to our final goal,” says Dr. Ricordi.

Lori Weintraub, Diabetes Research Institute Foundation, editorial@mediaplanet.com