

Q&A with Dr. Crystal Nyitray, Inventor, Founder and CEO of Encellin, Inc. developing a Ultra Thin-Film Cell Encapsulation and Delivery Device that will enable Type I Diabetes Patients to better Regulate Insulin



Dr. Crystal Nyitray
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CEOCFO: *Dr. Nyitray, the tagline on your site is, “Protecting cells, protecting people.” What is the problem that you are addressing at Encellin Inc?*

Dr. Nyitray: Encellin is developing a cell encapsulation technology that is focused on allowing cells to do what they do best. When you think

about it, the cell is the ultimate smart machine. Most, if not all, therapies are trying to recapitulate some function of the cell; either some protein or small molecule that the cell is secreting, or some feature that the cell is responding and reacting to. Our approach is to allow the cell to do what the cell does best. Our technology is built on allowing the cell to maintain its normal function. In the instance of diabetes, our investigational therapy is being developed to detect glucose and secrete insulin through the membrane, and at the same time protect those enclosed cells. In this way, you could create an approach where you would re-implant those missing cells in Type I diabetes.

CEOCFO: *Where are you right now in the development process?*

Dr. Nyitray: Encellin is a preclinical stage biotechnology company. However, the technology itself has been under development for the past five plus years.

CEOCFO: *What is the science of how it works?*

Dr. Nyitray: For the most part, what we are doing is provide a platform technology that hides the cells from the body but lets them maintain their normal function. With cells inside of our platform technology, they would be able to interact with the body but could be protected from graft rejection.

CEOCFO: *Why does it work? Are other people trying to accomplish what you have been able to do?*

Dr. Nyitray: The field for encapsulation has been around for a while. One of the things that we are fundamentally doing differently is developing these therapies by thinking about the biology of this system. If you look back a couple of years you will see these really fantastic membranes, but these are stiff, rigid silica based membrane that, when you want to then implant in a person, are not very biocompatible. People are not machines, and we don't want to put computer chips inside a person without thinking about how that would respond within a human. We are focused on the patient, and developing towards the right cues to have complete patient satisfaction.

CEOCFO: *Would the device just need to be in one place or would it need to be in a number of locations?*

Dr. Nyitray: What is really nice about this therapy is that it consists of a very thin compliant material, meaning you can implant them a number of placed throughout the body. Practically, we have a couple of implant sites in mind that would enable the ease of access of the implantation.