

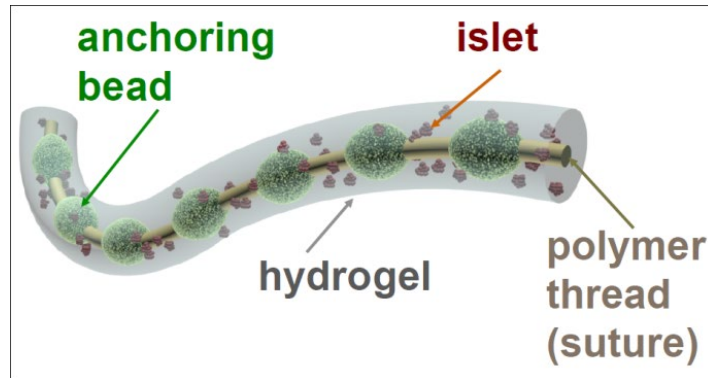


A Cell Encapsulation & Delivery Device to Treat Type 1 Diabetes

The Technology TRAFFIC: An Implantable & Transplantable Device

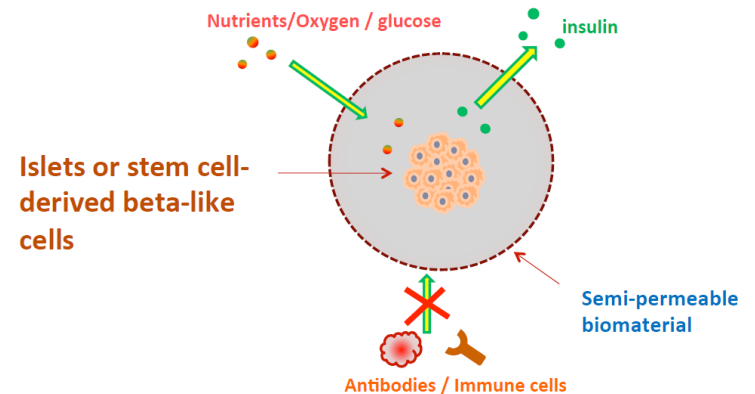
TRAFFIC Technology

An encapsulation system including microcapsules on a beaded string made with engineered fiber



Example of device

The concept of islet encapsulation



- No Immunosuppressant
- Translatable

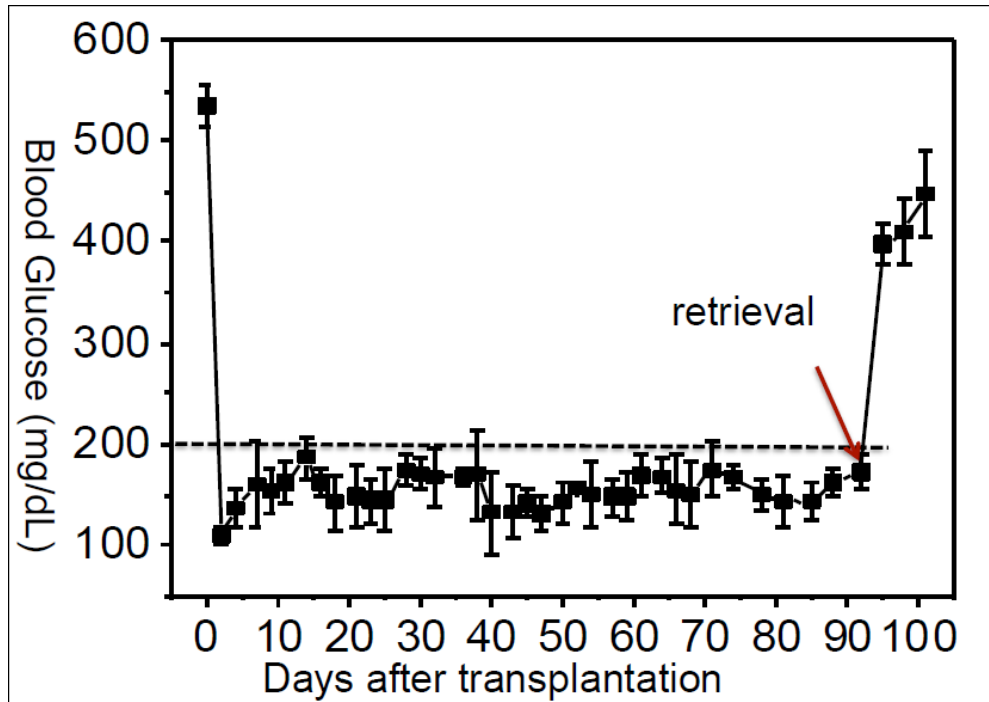
Technology Advantages

- Current Encapsulation Systems:
 - Macroscopic devices
 - Induce fibrosis,
 - are mechanically fragile and bulky
 - Hydrogel microcapsules
 - Not all capsules are retrievable
- Our TRAFFIC technology:
 - Biocompatible,
 - Easily transplantable,
 - Functionally durable,
 - Retrievable,
 - Mechanically robust.

Type 1 Diabetes: Market Overview

The market for insulin alone will reach over \$32 billion in 2018

In vivo proof of concept studies



Rodent Studies

When transplanted into chemically STZ-induced type 1 diabetic mice, blood glucose levels were corrected to below 200mg/dL for at least 8 weeks, the time of removal of the device.

*Higher mammal studies in process

Licensing Contact:

Jeff Fearn, jcf55@cornell.edu 607-254-4502

Cornell Ref.:

D6480/D6655 - <http://cornell.flintbox.com/public/project/25820/>