A Cell Encapsulation & Delivery Device to Treat Type 1 Diabetes
The Technology TRAFFFC: An Implantable & Transplantable Device

TRAFFIC Technology

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

- No Immunosuppressant
- Translatable

The concept of islet encapsulation

Example of device
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

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