Current status of Islet Transplantation
Enzyme blends

Care of multiorgan donor

Early damage
- Donor injury
- Processing injury
- Hypoxia
- Apoptosis
- Inflammation
- Neovascularization

Late loss
- Acute chronic reaction
- Autoimmunity
- Metabolic stress
- Islet-toxic I/S
- Failure of regeneration


T-cell depletion and anti-cytokine
5-year outcomes

Vantyghem MC et al. Diabetes Care 2009; 32: 1473
Critics in Islet Transplantation

- Multiple donor vs. single donor organs
- Safety of immunotherapy
- Long-term outcome

However, recent progress in islet isolation and clinical transplantation justifies further expansion of islet transplantation.

Keyword: RESEARCH Not ONLY FOR ISLET TRANSPLANT
“To do” list for the future:

- Expanding the donor organ pool
- Strategies to increase the graft mass and quality
- Transplantation without immunosuppression
- Clinical trials (pilot studies vs. larger randomized trials)
Clinical trials (phase I/II)
Extrahepatic site

THE PILOT BIOHUB TRIAL and the Ricordi Group (Miami, US)
Clinical Trials NCT02213003

Cell Pouch System™, Sernova Corp Shapiro Group (UK and Canada)
Clinical Trials NCT01652911 ??