

## 'Hydrogel' improving success of islet transplantation

JDRF-funded researchers in the US have created a new biomaterial that improves the success of islet transplantation.

Islet transplantation involves isolating islet cells from donor pancreases and transplanting it into patients. The procedure can be life-saving, especially for those people with type 1 diabetes who have 'hypo unawareness'.

Through experiments in mice, the researchers coated donor islets with the new biomaterial, known as hydrogel. The hydrogel forms a protective layer around the islets. The coated islets were injected into a region just outside the small intestine, instead of the portal vein through the liver.

The results showed that this new material, combined with the new injection site was successful in allowing the transplanted islets to survive and be well connected to the blood flow. This study shows that the hydrogel has a good potential to be further investigated as a feasible biomaterial for the islet transplantation process.

Further studies are currently being funded by JDRF to understand whether the hydrogel will be able to protect the transplanted islets from the existing autoimmune reaction of type 1 diabetes, and the immune reaction to the introduced foreign islets.

*These research results form part of a worldwide effort to find a cure for diabetes. Your support makes sure this research effort continues. Thank you !!*