

Connexins: Providing protection to cells destroyed in Type 1 diabetes

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Type 1 diabetes is a lifelong disease characterized by high levels of sugar (glucose) in the blood. It is caused by the patient's immune system attacking and destroying the cells in their pancreas that produce the hormone insulin, which regulates blood glucose levels.

Surprisingly, little is known about the mechanisms regulating the sensitivity and resistance of these cells, which are known as beta-cells, to immune system attack.

However, a team of researchers led by Paola Meda, at the University of Geneva, Switzerland, has now determined that the protein connexin 36 protects mouse pancreatic beta-cells against immune molecules that are prevalent in the pancreas at the onset of type 1 diabetes.

Meda and colleagues therefore suggest that promoting connexin 36 expression and/or function therapeutically might provide a way to protect beta-cells from immune system attack and thereby sustain [insulin production](#) in individuals with type 1 diabetes.

More information: Connexins protect mouse pancreatic beta-cells against apoptosis, www.jci.org/articles/view/4050...63ae56e58268ff17ac81

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