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**Diabetes: Why does the immune system attack the pancreas?**

In type-1 diabetes, cells of the immune system attack the insulin-producing beta cells of the pancreas. Scientists have now found how this may happen.

- **Healthy individual**
  - Pancreas produces insulin
  - Insulin regulates sugar levels in the blood

- **Patient with type-1 diabetes**
  - Insulin-producing beta cells of the pancreas release proteins in packages (exosomes), which are taken up by dendritic cells
  - Exosomes released by beta cells
  - T cells see the proteins as enemies and attack the beta cells that produce them

- **Dendritic cell**
  - Present the exosome contents to T cells
  - Dendritic cells present the exosome contents to T cells

**Beta cells**

**T cells**

**Immune cells**