

NIDOGEN-2 DERIVED PEPTIDES FOR TREATMENT OF DIABETES

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Value Proposition: *Novel glucagon regulator and therapeutic for diabetes*

Technology Description

Researchers from the laboratory of Dr. David Piston at Washington University have discovered and isolated a peptide-based treatment from brown adipose tissue that normalizes glycemia and suppresses glucagon without altering insulin, representing an alternative therapeutic strategy for the management of diabetes.

Ex vivo, the treatment (CB-100) suppresses glucagon secretion from pancreatic islets across healthy and diabetic conditions. *In vivo*, in murine models of type-1 diabetes, CB-100 introduces sustained normalization of blood glucose, enhances adipocyte differentiation and browning of white adipose tissue, and improves glucose homeostasis by increasing tissue glucose uptake. Preliminary lead optimization has identified a key fragment of Nidogen-2 as an important component of CB-100.

Publications – [\(2025\)](#) Regulation of Type 1 Diabetes via Brown Adipocyte-Secreted Proteins and the Novel Glucagon Regulator Nidogen-2. *Diabetes*

Applications – Normalization of glucagon secretion, protection against hypoglycemia and hyperglycemia

Key Advantages – Insulin-independent strategy capable of reversing diabetic phenotypes

Patents - PCT Application Filed.

Related Web Links: [David Piston](#) & [Piston Lab](#)