

# **NOX-700, A Novel Nitric Oxide Neutralizing Compound for Treating Type 2 Diabetes**

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Demonstration that mice lacking functional copies of the iNOS gene were protected from developing insulin resistance during obesity-induced diabetes is of great significance (Perreault and Marette. 2001. *Nature Medicine*. 7:1138-1143) and provides the rationale for a new nitric oxide (NO)-neutralizing therapeutic for Type 2 diabetes.

For this novel approach, Medinox is developing NOX-700, an orally active, NO-neutralizing compound. Our studies show clearly that NOX-700 alleviates diabetic symptoms in the ob/ob mouse and the Zucker diabetic fatty (ZDF) rat, two widely used animal models of Type 2 diabetes. In both models, NOX-700 lowered serum glucose, improved glucose tolerance, and reduced the percentage of total glycated hemoglobin. Immunohistochemical studies on pancreatic tissue from ZDF rats revealed that NOX-700 therapy preserved islet structure and increased insulin immunoreactivity. These studies demonstrate the effectiveness of NOX-700 in addressing the hallmark pathologies of Type 2 diabetes and have major implications for the treatment of the human disease.