



Seeks partner to license Activators of endothelial nitric oxide synthase

► Benefits

- Specificity. Agents modulate the activity of one NOS isoenzyme, but do not substantially affect the activity of the other NOS isoenzymes.
- Identifies target sequences of regulation, allowing for the first time the development of isoenzyme specific activators and inhibitors
- Overcomes earlier limitations, which restricted drug development to analogs of substrates, such as arginine, or cofactors such as tetrahydrobiopterin.

The nitric oxide synthase (NOS) enzyme family, responsible for the production of nitric oxide (NO), has long been recognized as an attractive target to treat a variety of therapeutic indications including hypertension, diabetes and toxic shock syndrome. Highly selective modulators are required because of the ubiquitous nature of NO in mammalian physiology and the fact that multiple NOS isoenzymes are capable of producing NO *in vivo*. Until recently, advances in understanding the structural and functional mechanisms of this enzyme class resulted in the identification of agents and/or mechanisms that indirectly modulate NOS. However, identification of agents that directly and selectively modulate NOS activity remained elusive.

Dr. John Salerno and his research group have identified the regulatory peptide(s) of constitutive NOS enzymes as an intrinsic polypeptide insert in the flavin mononucleotide (FMN) binding domain of endothelial NOS. As a result of this discovery, methods are now available for identifying and isolating an entirely new class of NOS isoform-specific inhibitors or activators. The present invention includes both the methods by which agents can be isolated or identified, as well as those agents that modulate via activation or inhibition of NOS activity.

STAGE OF DEVELOPMENT

In vitro assay studies in progress

FOR MORE INFORMATION

Kris A. Burton
Marketing Associate
(518) 276-3675
burtok2@rpi.edu

► Applications

- Broad range of potential therapeutic indications including hypertension, erectile dysfunction, diabetes and AIDS related dementia

Rensselaer Polytechnic Institute
110 8th Street J Building
Troy, NY 12180-3590
Phone (518) 276-6023
Fax (518) 276-6380
www.RPItechnology.com

IP STATUS	►	U.S. Patent 6,150,5000
INVENTOR	►	J. Salerno
OTCCASE	►	645