Researchers at the University of South Florida have developed a novel treatment for stroke by using specific sigma agonists, which reduce infarct volume and increases functional recovery after stroke.

Stroke is one of the leading causes of death and disability in the United States. However, there are few pharmacologic agents available for treatment of cerebral ischemia or stroke. Since most patients do not seek treatment until after the therapeutic window for most tested drugs has expired, it is necessary to target the pathological processes occurring at delayed time points after stroke onset.

The systemic administration of N,N'-di-1 naphthylguanidine HCl (NAGH) and N,N'-di-p-nitrophenylguanidine HCl (NAD) when administered 24 hours after experimental stroke was found to reduce neural damage and more importantly enhance behavioral recovery thirty days later. This agent has the potential to extend the therapeutic window several-fold over the currently available treatment methods to many stroke patients. Additionally, this agent provides neural protection leading to recovery of functions, such as motor skills.

This technology is for the treatment of stroke and has the ability to enhance behavioral recovery following a stroke unlike any other method or drug that is currently approved for stroke treatment.

ADVANTAGES:
- Enhances behavioral recovery after 30 days
- Reduces neural damage
- Extends therapeutic window several-fold

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