

Treatment for Smoke Inhalation and Cyanide Poisoning

Tech ID: 19492 / UC Case 2003-034-0

BACKGROUND

The number one cause of death due to fires is smoke inhalation. An estimated 60-80% of fire deaths are the result of smoke inhalation injuries rather than burns. Cyanide, as one of the major toxic chemicals generated in household fires, contributes to these smoke inhalation-related deaths. Cyanide may also cause toxicity through ingestion or dermal absorption.

TECHNOLOGY DESCRIPTION

A naturally occurring small molecule has been found to have an extremely high binding affinity for cyanide. This molecule can, therefore, act as a cyanide scavenger and has the potential to treat cyanide poisoning as well as smoke inhalation. The molecule shows no evidence of toxicity in tissue culture cells when delivered at clinically useful levels. A rapid and inexpensive new method to produce the molecule has also been developed.

ADVANTAGES

The compound is inexpensive, easy to synthesize and non-toxic, and has the potential to be a more effective treatment than currently used methods.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,534,007	01/03/2017	2003-034
United States Of America	Issued Patent	8,431,561	04/30/2013	2003-034

Additional Patent Pending

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [A Novel Nitric-Oxide Releasing Drug](#)
- ▶ [New Treatment for Sepsis](#)

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Metabolic/Endocrinology
 - ▶ Other

RELATED CASES

2003-034-0