



Agents for Prophylaxis or Treatment of Cyanide

This is an antidote for cyanide poisoning with the potential to provide an improved safety profile for all routes of administration, including intramuscular, intra-nasal and oral which is not possible with current antidotes.

Cyanide is a well known toxin with potential as an international threat, a weapon of mass destruction and an accidental hazard through industrial exposure, medical crisis or smoke inhalation. Accidental exposure is of particular concern due to increased use of materials that produce cyanide when homes or businesses burn and use of cyanide producing chemicals in research and industry.

Current cyanide antidotes are slow acting and can have serious life threatening side effects for exposure victims and emergency response personnel. This new formulation provides a solution to the administration difficulty and can be used prophylactic prior to possible exposure in fires, chemical accidents, or terrorist attacks. In addition this formulation

has a longer treatment window after exposure than the current treatment

Features & Benefits

- Designed to be more effective with broader clinical indications, safer, easier and cheaper than currently approved treatments
- Small molecule with efficient, scalable synthesis
- All routes of administration may be possible, including intramuscular, inhalation and oral for prophylaxis and emergency treatment or terrorist response
- Pre-clinical research indicates longer post-exposure time window to initiate treatment which could result in more lives saved
- Smaller dose may result in smaller kit size for cheaper and easier transportation and storage, such as an "Epi Pen"
- Demonstrated efficacy as a prophylactic prior to exposure

Technology Status

- Multiple compounds available for intended applications
- In vivo animal models, mouse, rabbit and pig efficacy and safety established
- IND submission planned for mid 2009
- May fall within FDA "Animal Rule"
- \$4Million grant from the NIH for additional research

IP Status

PCT patents filed

Primary Inventor

Dr. Robert Vince, Director of Center for Drug Design and Professor of Medicinal Chemistry

Questions? Contact:

Sue Patow,
Technology Marketing Manager

Ph 612.624.3966

E-mail patow001@umn.edu

UM Docket Z05226

Learn about more groundbreaking discoveries at www.research.umn.edu/techcomm

