NIH NATIONAL CANCER INSTITUTE

IMPROVED PEPPER SPRAY FOR REPELLENCY AND INCAPACITATION

SUMMARY

The National Cancer Institute seeks partners to license a composition for use in an aerosol or spray, that when administered, causes a painful stimulation and incapacitates a person for only a brief period.

REFERENCE NUMBER

E-048-2010

PRODUCT TYPE

- Devices

KEYWORDS

- Pepper spray, incapacitation, safety aerosol
- non-lethal weapon

COLLABORATION OPPORTUNITY

This invention is available for licensing.

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DESCRIPTION OF TECHNOLOGY

Non-lethal means of temporarily incapacitating a person are greatly needed for law enforcement and for personal protection. A common approach is to use pepper spray. Although current pepper sprays are effective, they cause pain for excessively long periods, and could be life threatening for people who suffer from asthma and have hypersensitive airways. This technology describes a composition for use in an aerosol or spray, that when administered, causes a painful stimulation and incapacitates a person for only a brief period. This technology may improve safety over currently available pepper sprays.

POTENTIAL COMMERCIAL APPLICATIONS

- Law enforcement (policing, riot control, crowd control)
- Incapacitating agent for use in hostage situations
- Personal self-defense, non-lethal weapons

COMPETITIVE ADVANTAGES

- Incapacitating pepper spray with reduced toxicity and enhanced safety.
- May reduce potential agency liability in case of an adverse response of an individual who was sprayed (due to reduced toxicity may not be as life threatening to those suffering from asthma or have hypersensitive airways as standard pepper sprays).
- Mixture can be incorporated into a spray, aerosol, or other dispersions.

INVENTOR(S)

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DEVELOPMENT STAGE

- Basic (Target Identification)

PATENT STATUS

- **U.S. Provisional:** US Provisional Application 61/340,063 filed March 12, 2010
- **Foreign Filed:** PCT Application PCT/US2011/028132 filed March 11, 2011
- **Foreign Filed:** Canada: Application 2,792, 878 filed March 11, 2011
- **U.S. Filed:** US Patent Application 13/634,447 filed September 12, 2012
- **U.S. Filed:** US Patent Application 15/010,830 filed January 29, 2016

THERAPEUTIC AREA

- Skin and Subcutaneous Tissue