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News Release

FOR IMMEDIATE RELEASE
September 29, 2011

Contact: HHS Press Office
(202) 690-6343

BARDA supports development of oral radiation drug

New contract funds drug to treat internal contamination from radioactive elements

A drug that can be taken orally to treat internal contamination from radiation after a radiological attack will be developed under a new contract issued today by the U.S. Department of Health and Human Services' Biomedical Advanced Research and Development Authority (BARDA).

Under the contract, Nanotherapeutics Inc. of Alachua, Fla., will conduct studies to develop an improved formulation of diethylenetriaminepentaacetate (DTPA) and improve manufacturing processes for it. As a chelating agent, DTPA can bind radioactive molecules to help the body remove them. It can be used to treat people who have inhaled or swallowed radioactive particles, or who have radioactive particles that entered the body through wounds.

The improved formulation, known as NanoDTPA, could be given orally and is being developed as a short-term treatment for people exposed to americium, curium, or plutonium. These radioactive elements could be used as components of a radiological dispersion device, also known as a dirty bomb. A dirty bomb combines a conventional explosive, such as dynamite, with radioactive material.

As licensed by the U.S. Food and Drug Administration, current forms of DTPA must be administered intravenously or by nebulizer, limiting their usefulness in an emergency.

"This is the first contract BARDA has awarded for the advanced development of an oral chelating agent to treat internal radiation contamination, and represents a milestone for our program," said BARDA Director Robin Robinson, Ph.D.

The 18-month, \$4.8 million contract can be extended for a total of up to five years and up to \$31.1 million and is as part of a federal effort to develop drugs to protect health and save lives in a radiological emergency. Recognizing that health care providers will need a variety of effective ways to identify and treat the wide range of illnesses and injuries that can be caused by radiological and nuclear incidents, BARDA maintains a portfolio of advanced development projects focused on treating radiation-induced bone marrow, gastrointestinal, lung and skin injuries.

Since 2007, BARDA has supported the advanced development of, and has purchased, two chelating agents, Ca-DTPA and Zn-DTPA, through Project Bioshield, for the Strategic National Stockpile. BARDA also is supporting development of a liquid formulation of Prussian blue, a non-chelating drug used to treat internal contamination with radiocesium.

Project BioShield provides additional and more flexible authorities and funding to support and expedite the development and acquisition of medical countermeasures against chemical, biological, radiological, and nuclear threats.

BARDA is seeking additional proposals for products that potentially could treat illness and injury from high levels of radiation, as well as improved diagnostic tools to measure the radiation dose a person has absorbed after a nuclear detonation or radiation accident. Proposals are accepted through the Broad Agency Announcement [BARDA-CBRN-BAA-11-100-SOL-00009](#) at [www.fbo.gov](#).

BARDA, an agency within the HHS Office of the Assistant Secretary for Preparedness and Response, provides a comprehensive integrated portfolio approach to the advanced research and development, innovation, acquisition, and manufacturing infrastructure for vaccines, drugs, therapeutics, diagnostic tools, and non-pharmaceutical products for public health emergency threats. These threats include chemical, biological, radiological, and nuclear threats, pandemic influenza, and emerging infectious diseases.

For more information about BARDA and the advanced research and development of medical countermeasures visit [www.phe.gov](#) and [www.medicalcountermeasures.gov](#).

Contract opportunities and awards are announced at [www.fbo.gov](#).

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