



Center for Strategic & International Studies  
Washington, DC

**U.S. BIOWARFARE DEFENSE: A Cost-Effective Strategy to Create Highly Efficacious Strategic Reserves of Therapeutics and Vaccines**

Crops that "manufacture" proteins needed to combat bioterrorism threats were developed in pioneering research funded by **Department of Defense Advanced Research Projects Agency (DARPA)**. Genetically modified plants (GM plants) were shown to accumulate antibodies that are indistinguishable from those made by humans, and to produce vaccines which provide effective oral immunization (edible vaccines).

In conjunction with U.S. military experts who have the facilities to evaluate dangers of disease-causing organisms that might be used by terrorists, scientists at **EpicYTE Pharmaceuticals, Inc.** and at the **Arizona Biomedical Institute (AzBio)** are collaborating to produce antibody therapeutics and vaccines using GM plant technology.

**Dr. Mich Hein** of EpicYTE and **Dr. Charles Arntzen** of AzBio will discuss the current state-of-the-art in this new technology, and the remaining hurdles that must be overcome to ensure the creation of sufficient amounts of these materials to provide a strategic reserve for protection of both military and civilian personnel in the event of a bioterrorism attack on the U.S.

***Meeting Agenda***

October 17, 2001  
8:00am to 9:30am  
Hart Senate Office Building  
Room 902

8:00 am *Welcoming Remarks*  
**John J. Hamre**, CSIS President and CEO

*Introductory Remarks*

**The Honorable Tim Hutchinson** (R-AR), U.S. Senate

**The Honorable Jim McDermott** (D-WA), U.S. House of Representatives

*Session Chair*

**Anne G.K. Solomon**, Senior Advisor for Technology Policy, CSIS

*Speakers*

**Dr. Charles Arntzen**

Founding Director, Arizona Biotechnology Institute  
President Emeritus, Boyce Thompson Institute for Plant Research

**Dr. Mich Hein**

Founding Scientist, Epicyte Pharmaceuticals, Inc.

9:30 am Adjourn







