What are "Dual Use Research" and "Dual Use Research of Concern"?



David R. Franz, D.V.M., Ph.D.

Vice President and Chief Biological Scientist

Midwest Research Institute



The "Dual Use" Dilemma

- Life sciences research underpins:
 - Biomedical and public health advances
 - Improvements in agriculture
 - Safety and quality of food supply
 - Environmental quality
 - Strong national security and economy
- However, good science can be put to bad uses





RESEARCH ARTICLE

Characterization of the Reconstructed 1918 Spanish Influenza Pandemic Virus

Trenser M. Tampre, "Christopher F. Berler," Falchde V. Ageller, "Bed Sarq," Milde Bellerame." Falchde V. Ageller, "Berlet Low," Impedien P. Kate.," 1970a V. Lechenberge, "Peter Prince," Adults Course-Verse, "Control of the Course-Verse,"

The probability declarate years of 100 to 10 to

commercially filter deaths of page of limits are placed interfaced from the information for their articles are related from the filter and the filter of the second for the filter of the second for the second of the filter of the second banks, which are ready that there is the month banks, which are not second for experiency as not found and not second for experiency as not found and the sample for experiency as not found and the sample for experiency as not found and the sample for experiency as the found bank of the first and a found to the first paint of the first and a found to the first page of the first and the first page of the first and the first page of the first p

- Subject to 2 of the Person Interrupt with a final facilities of the Subject to 2 of the Person Interrupt of the Subject to 2 of the Person Interrupt of the Person Interrupt

Affairs being to A. Delen (1994) and a second of second or second

There will problem them there To be the second of the seco

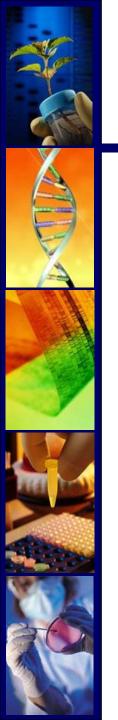
The this process and the vary processed is always including the complex ording segment of the analysis of the conductive of the conductive

The control of the co

Table 1. Plants Grander of the 19th flys 19th of the first partial of the 19th of the sequent of view seems view property before deathed above their Collection conditions that is time with well-on formation joint follows and the selection formation joint solutions of the collection of participation by the their collections of the participation of the 19th CO and ED reposed contribution of the 19th of the 19th CO and ED reposed contribution of the 19th of the 19

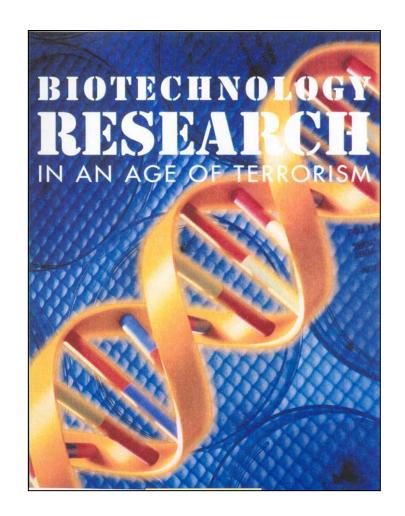
-	melinskups bysenti	
	Appen 10	topes/
9 14091	1817.95	-
Tuber	5.6 to 100	
PERSONAL PROPERTY.	1644, 1951	24.19
INDEPENDENT.	45 0 50	200 (0.00)
talking:	48 - 30	
VERNING.	18 6 18	12.5 (4.0)

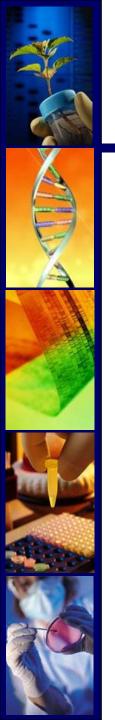
 Increasing recognition of need to consider possibility that new information from life sciences research could be misused to pose a threat to public health and national security



The Concept of "Dual Use" Research

- Report of the National Research Council of the National Academies (2004)
- "...the same technologies can be used legitimately for human betterment and misused for bioterrorism."





NSABB

- To advise on strategies for mitigating the potential for misuse of dual use biological research
 - Consider both national security concerns and the needs of the research community



Proposed Oversight Framework for DURC

NATIONAL SCIENCE ADVISORY BOARD FOR BIOSECURITY

Proposed Framework for the Oversight of Dual Use Life Sciences Research: Strategies for Minimizing the Potential Misuse of Research Information





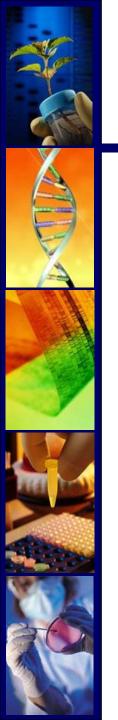




A Report of the National Science Advisory Board for Biosecurity (NSABB)

June 2007

Charge: Propose an oversight framework for the identification, review, conduct, and communication of life sciences research with dual use potential



DUR vs. DURC

- Development of new technologies and generation of information with potential for benevolent and malevolent purposes
 dual use research (DUR)
- But most life sciences research has some potential for misuse – most could be considered DUR
- Goal is to identify the subset that has highest potential for generating information that could be misused = DUR of concern (DURC)



Criterion for Identifying DURC

 Research that, based on current understanding, can be reasonably anticipated to provide knowledge, products, or technologies that could be directly misapplied by others to pose a threat to:

- Public health
- Agriculture
- Plants
- Animals
- Environment
- Materiel

Elements of national security



Global Scientific Community

- Life sciences research is a global endeavor
- Critical that researchers worldwide
 - Are aware of the dual use issue
 - Understand their responsibility
 - Engage with colleagues across the globe to promote responsible research