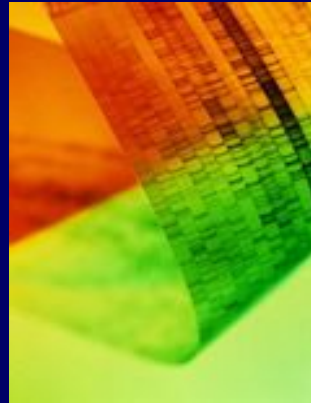
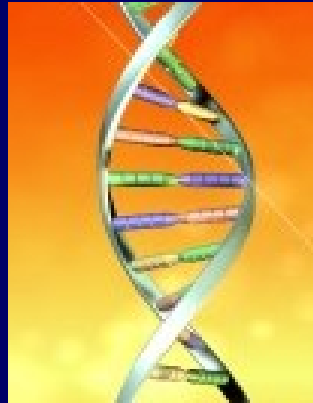


Update from the Working Group on Outreach and Education



**Michael Imperiale, Ph.D.
Chair**

Impetus for Working Group

- NSABB charged with advising on programs of outreach, education, and training for scientists and laboratory workers
- NSABB and research community concerned about lack of awareness of the dual use issue
- Need for concerted efforts (multiple agencies and scientific community)



Strategic Plan



**NATIONAL
SCIENCE
ADVISORY
BOARD FOR
BIOSECURITY**

Strategic Plan for Outreach and Education On Dual Use Research Issues



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

December 10, 2008



Prior and Ongoing Outreach Efforts

- **Ensuring stakeholder input into NSABB work products**
 - Roundtables
 - Presentations to stakeholder audiences
 - Public consultation meetings
- **Electronic communications**
 - Website as the portal for NSABB information
 - Meetings
 - Work products
 - Email inbox for public queries
 - Listserv
- **Exhibits at major meetings**
 - In conjunction with recombinant DNA
 - Stand alone NSABB/Biosecurity exhibit
- **Presentations and workshops to key constituency groups**
 - Nature of the dual use issue, activities and work products of the NSABB



Sampling of Organizations to Whom NSABB Members and Staff Have Presented

- American Association for the Advancement of Science
- American Biological Safety Association
- American Society for Microbiology
- Association of American Medical Colleges
- Center for Strategic and International Studies
- Chesapeake Area Biological Safety Association
- Council on Government Relations
- Global Health Security Initiative – Ministerial Meeting
- Howard Hughes Medical Institute
- Massachusetts Society for Medical Research
- Midwest Area Biosafety Network
- NAS Gov't-Univ Partnership for Science and Security
- NAS Committee on Biodefense Analysis and Countermeasures
- Northeast Biological Safety Association
- Pan-American Health Organization
- Princeton University – Biosciences Oversight Workshop
- Public Responsibility in Medicine and Research
- University of Hawaii
- University of Michigan –Academic Freedom and National Security
- University of Pittsburgh Medical Center – Center on Biosecurity
- University of Texas System
- World Health Organization

Outreach 2008-2009

NSABB Members and Staff

2008

USDA (ARS, SE region)– Jan
CDC (Biosafety conf) – Feb
MSMR – Feb
ASM Biodefense – Feb
HHMI – Mar
NEBSA – May
ASM – Jun
CHABSA – Jun
USG Public Consultation – Jul
MABioN – Jul
BWC – Aug
PRIM&R – Sep
MidWest RCE – Sep
UT Schools – Sep
ABSA – Oct
Boston Community Reps on IBCs –
Oct
Intl. Roundtable – Nov
AAAS – Nov
ASCB – Dec

2009

Stanford University/Federal Judicial
Center – Jan
MSMR – Feb
ASM Biodefense – Feb
BIONET – Mar
PRIM&R – Mar
AAI – May
ASM – May
NEBSA – May
AIHCE – May
IBC Nat'l Conf. (NIH) – Jun
CSHEMA – Jul
MABioN – Aug
ASM (Bacillus) – Aug
PRIM&R – Sep
MSMR – Sep
ABSA – Oct
MABSA – Nov

Biosecurity in the Life Sciences

What is Dual Use Research?

Research with legitimate scientific purpose that has the potential to yield information that could be misused to pose a threat to public health or other aspects of national security.



Does Your Research Have Dual Use Potential?



www.biosecurityboard.gov

NIH Biosecurity Program

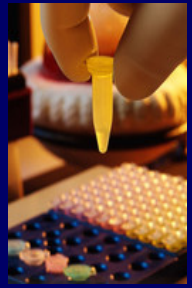
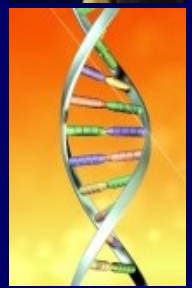
OBA's activities to address "dual use" research include convening and managing the National Science Advisory Board for Biosecurity, which provides advice to the Federal government on:

- **Federal and institutional oversight**
Identifying, reviewing and surveilling dual use research of concern
- **Education and training**
Promoting awareness in the research community about the dual use issues and the responsible conduct of research with dual use potential
- **International collaboration**
Fostering international engagement on the issues related to dual use research



Goals of Future Efforts

- **Input into federal policymaking**
 - Publication of proposed requirements and policies for public comment and input
 - Public consultation meetings
- **Educating about formal requirements**
 - “Roll out” plan
 - Electronic and print educational materials
 - Model curricula
 - Workshops
 - Exhibits





Key Considerations

- **Target audiences**
 - Who are the key stakeholders?
 - How do understanding and educational needs vary for each audience?
 - What kind of input is best sought from various constituencies?
- **Message development**
 - What are the key points to convey to different stakeholder communities?

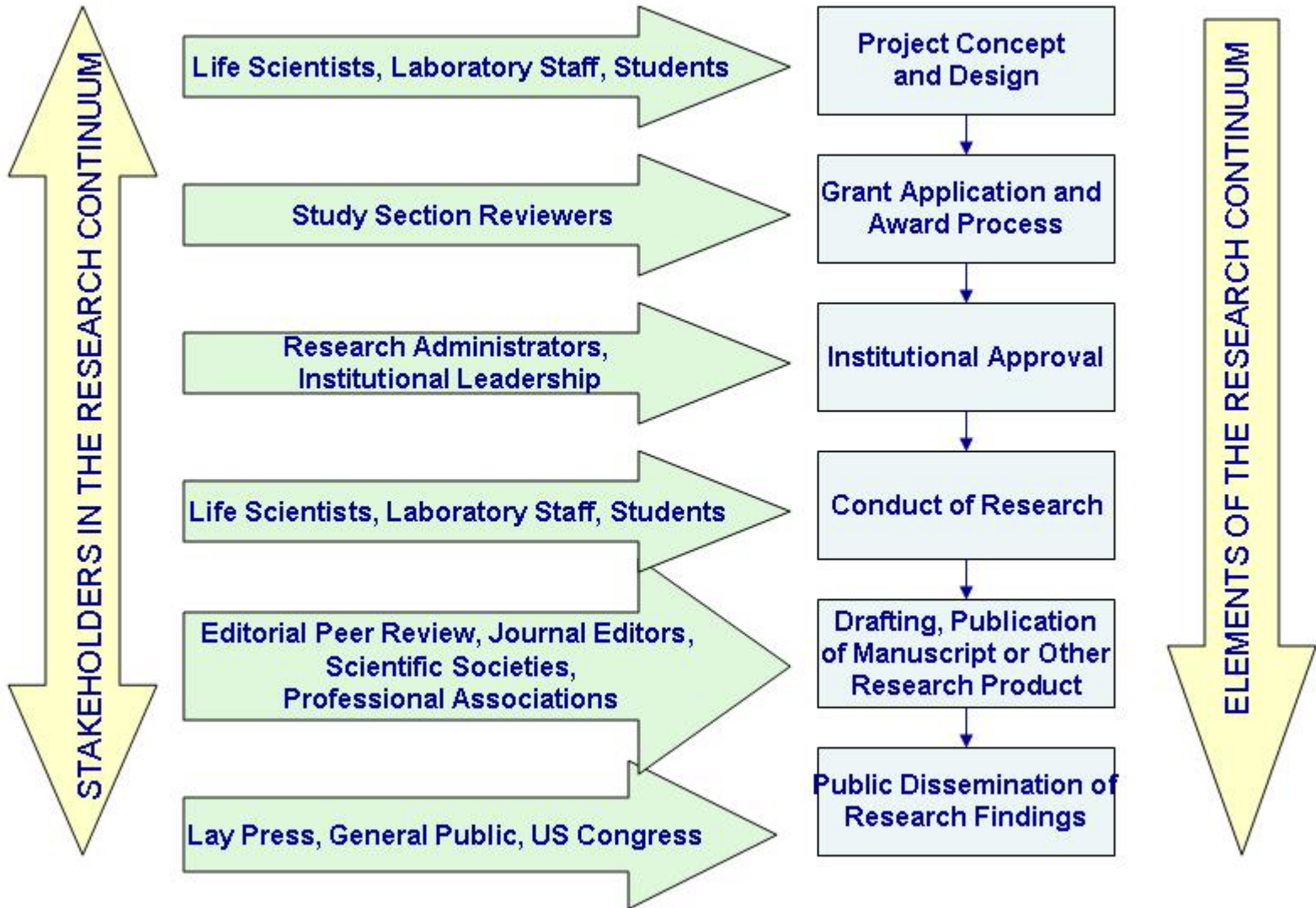
Key Considerations

- **Vehicles for information dissemination**
 - What are the most effective means of communicating about the issue of dual use research?
 - Who are the most credible and effective communicators?
- **Coordinating communication efforts**



The Outreach and Education Continuum

Target Audiences



Recent initiatives

- Educational brochure on the dual use research issue
- Dual use educational video



Educational Brochure on Dual Use Research

- Will present general conceptual overview
- Distinguish between DUR and DURC
- Introduction to work of the NSABB
- Wide distribution at meeting and exhibits

National Institutes of Health
Office of Biotechnology Activities

Does Your Research
Have Dual Use Potential?



(Conceptual rendering)



Educational Video on “Dual Use Research – A Dialogue”

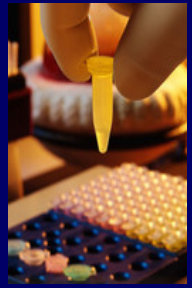
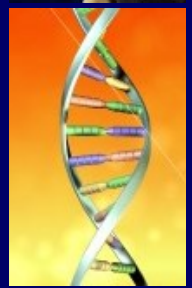
■ Purpose

- To initiate a dialogue among scientists about the dual use issue
- To present the issue from the perspective of nationally recognized experts in virology, molecular biology, plant pathology, animal sciences, research administration, policy analysis, and the public perspective

Educational Video on “Dual Use Research – A Dialogue”

▪ Approach

- Frame the issue
 - What is dual use research?
- Describe the issue
 - What is the nature of the threat?
- Discuss the responsibility of scientists and the government
 - What can be done?
- Set us on a common path forward
 - How should we prepare for the future?





Educational Video on “Dual Use Research – A Dialogue”

▪ Uses

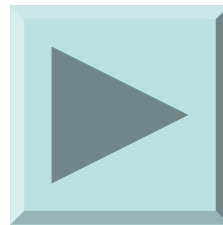
- General awareness building
- Opening segment to accompany future educational materials

▪ Dissemination

- OBA Web site
- DVD distributed at meetings and presentations
- Resource for RCR course directors and other educators

Educational Video on Dual Use Research

- A sneak peek!



Working Group Members

Voting



Michael J. Imperiale, Ph.D. (*Chair*)
University of Michigan

Paul S. Keim, Ph.D.
Northern Arizona University



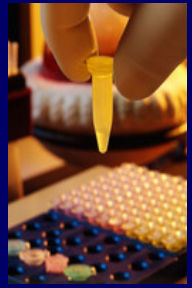
Susan A. Ehrlich, J.D.
Phoenix, AZ

Stuart B. Levy, M.D.
Tufts University School of Medicine



Arturo Casadevall, M.D., Ph.D.
Albert Einstein School of Medicine

David A. Relman, M.D.
Stanford University School of Medicine



David R. Franz, D.V.M, Ph.D.
Midwest Research Institute

James A. Roth, D.V.M, Ph.D.
Iowa State University




Dennis L. Kasper, M.D.
Harvard Medical School

Anne K. Vidaver, Ph.D.
University of Nebraska-Lincoln

Working Group Member

Federal Agency Liaison



John Burklow
National Institutes of Health

Daniel Strickman, Ph.D.
US Department of Agriculture

Joanne Tornow, Ph.D.
National Science Foundation