

The logo features a blue background with a grid pattern. On the left, there is a stylized image of a microscope lens and a petri dish with red streaks. The text "NATIONAL SCIENCE ADVISORY BOARD FOR BIOSECURITY" is written in white, serif, all-caps font across the top right.

**NATIONAL SCIENCE ADVISORY
BOARD FOR BIOSECURITY**

**Codes of Conduct
Working Group**

**Progress Report
July 13, 2006**



Working Group Participants

Voting Members

- Murray Cohen
- Claire Fraser
- John Lumpkin
- Mark Nance
- Diane Wara

Ex Officios

- Jason Boehm (OSTP)
- Jamie Fly (DoD)
- Robert Mikulak (DoS)
- Jan Nicholson (CDC)
- Stuart Nightingale (DHHS)
- Gerald Parker (DHHS Alt.)
- Kerry Patterson (DoD)
- Caird Rexroad (USDA)
- Scott Steele (DoJ)
- Helen Quill (NIH)

Working Group Charge

“To provide recommendations on the development of a code of conduct for scientists and laboratory workers that can be adopted by professional organizations and institutions engaged in the performance of life science research.”

- **To identify issues pertinent to the conduct of DUR that a code should address.**
- **To develop standards and principles that can be included in a formal educational and training program.**

Fundamental Operating Principles

- **A code of conduct can make good people better, but probably has negligible impact on intentionally malicious behavior.**
- **A code intended to address dual use research is contingent on a clear understanding of the criteria to identify this type of research.**
- **Participation by the research community during the development of a code helps to define appropriate standards and language and should encourage broader acceptance.**

Working Group Recommendations

A template document for the development of a code of conduct should be made available to the research community that includes:

- General considerations for the “Development of a Code of Conduct for Dual Use Research in the Life Sciences”;**
- Articulation of the “Core Responsibilities of Life Scientists in Regard to Dual Use Research of Concern”; and**
- Specific “Responsibilities in the Research Process”.**

Working Group Recommendations

Professional societies or scientific institutions should be encouraged to:

- Adopt the content of the template, adapting it as appropriate to the research context and other governing documents; and**
- Use the document for educational and training purposes.**

Target Audiences for the Document

- **Life Sciences Societies and Associations**
- **Research Institutions**
- **Industry**
- **Research Leadership**
- **Individual Life Scientists**
- **Technicians, Students, and Others Involved in the Research Process**
- **Funding Agencies/Institutions**
- **Journal Editors, Reviewers, and Publishers**

Core Responsibilities of Life Scientists in Regard to Dual Use Research of Concern

Individuals involved in any stage of life sciences research have an ethical obligation to avoid or minimize the risks and harm that could result from malevolent use of research outcomes.

Toward that end, scientists should:

- Assess their own research efforts for dual use potential;
- Seek to stay informed of literature, guidance, and requirements related to dual use research;
- Train others to identify dual use research of concern and manage it appropriately;
- Serve as role models of responsible behavior, especially when involved in research that meets the criteria for dual use research of concern; and
- Identify and report dual use research of concern through appropriate channels.

Responsibilities Associated with the Research Process

Proposing Research

When designing and proposing research:

- Try to anticipate whether the end products of the research could be deliberately misused for harm;
- Design research that promotes scientific advances, while minimizing elements of dual use research that have potential for misuse;
- Consider the benefits of those dual use elements that cannot be avoided in light of the potential harm that might result from their misuse; and
- Modify the research design to manage and mitigate potential misuse.

Responsibilities Associated with the Research Process

Managing Research

When managing research programs in the public or private sectors:

- Promote awareness of dual use research issues and the accompanying responsibilities;
- Develop and maintain systems, policies, and training to ensure appropriate identification and management of dual use research; and
- Implement all guidelines and regulations specific to dual use research of concern.

Responsibilities Associated with the Research Process

Establishing and Managing Review Systems

When overseeing the research review process (e.g., funding agencies, institutional review committees, institutional leadership, etc.) :

- Ensure that all review systems are appropriately prepared to identify and manage dual use research concerns;
- Ensure researchers and reviewers are knowledgeable and compliant with all ethical, institutional, and legal requirements related to dual use research of concern; and
- Reconsider review systems periodically to ensure they reflect current knowledge and guidelines related to dual use research of concern.

Responsibilities Associated with the Research Process

Reviewing Research

When reviewing research:

- Stay informed about dual use research of concern and all applicable ethical, legal, and institutional requirements;
- Consistently assess proposals against the criteria for dual use research of concern during the review process; and
- Advise appropriate parties when the research under review meets the criteria for dual use research of concern.

Responsibilities Associated with the Research Process

Conducting Research

When conducting research:

- Observe safe practices and ethical behaviors in the laboratory and ensure support personnel do the same;
- Use appropriate physical security measures and periodically reassess their adequacy;
- Observe applicable guidelines for the responsible conduct of dual use research of concern;
- Be attentive to the dual use potential of knowledge, products, and technology associated with all research activities; and
- Alert responsible institutional officials when dual use research of concern is identified and when decisions about its management are being made.

Responsibilities Associated with the Research Process

Collaborating on Research

When collaborating on research activities:

- Discuss whether research knowledge, products, or technologies meet criteria for dual use research of concern and understand associated ethical responsibilities;
- Agree on specific individual responsibilities for the oversight of research with dual use potential;
- Respect expressions of concern that research efforts may have dual use potential and raise these concerns with appropriate oversight officials;
- Use appropriate measures to minimize risks to public health, agriculture, plants, animals, the environment, or materiel from research efforts; and
- Maintain a current awareness of national and international policies for dual use research of concern.

Responsibilities Associated with the Research Process

Communicating Research

When communicating about knowledge, products, or technologies associated with dual use research of concern:

- Be aware of ethical and legal considerations in communicating about dual use research of concern;
- Weigh potential risks and benefits to public health, agriculture, plants, animals, the environment, or materiel that could result through research-related communications; and
- Consider options that may reduce or eliminate potential risks associated with research-related communications, while clearly identifying the benefits.

Responsibilities Associated with the Research Process

Scientific Education and Membership

When providing oversight and training to new members of the life sciences community:

- Raise awareness about the meaning and importance of dual use research of concern;
- Inform developing scientists of ethical, legal, and institutional responsibilities associated with dual use research; and
- Encourage collegial discussion of dual use research issues, especially whether or not specific activities meet the criteria.

How the Code Recommendations Interface with Other NSABB Work Products

- **Incorporates the criteria for “Dual Use Research of Concern”.**
- **Incorporates fundamental principles for the responsible communication of dual use research.**
- **Attempts to use language appropriate for international audiences.**
- **References functions associated with the newly formed working group for “Oversight Framework” and “Outreach and Education” strategies.**

Recommendation to the NSABB

- **The Working Group has developed a draft document entitled, *Considerations in the Development of a Code of Conduct for Dual Use Research in the Life Sciences*.**
- **The intent of this document is to foster the development of codes of conduct to address dual use research concerns among scientific associations and institutions.**
- **The Working Group believes that the document has progressed to the point that broader public input is needed.**
- **Therefore, the Working Group requests the NSABB consider approving this work product as a component of a framework for addressing dual use research of concern.**