

CHAPTER XI: DUAL USE RESEARCH

Broadly defined, “dual use” refers to the malevolent misapplication of technology or information initially developed for benevolent purposes. In the realm of life sciences, “dual use” refers to the potential misuse of microorganisms, toxins, recombinant or synthetic nucleic acid technology or research results to threaten public health or national security. “Dual Use Research of Concern,” referred to as DURC, is research that has a potential to be DIRECTLY misapplied.

The National Science Advisory Board on Biosecurity (NSABB) is an advisory board to the U.S. Government on issues of biosecurity. The NSABB is administered through the National Institutes of Health (NIH), which publishes the most recent NSABB discussions and NSABB reports on issues involving Dual Use Research. A video prepared by the NSABB is available on the NIH-OBA website, which can be accessed here:

<http://osp.od.nih.gov/office-biotechnology-activities/biosecurity/dual-use-research-concern>.

In general, experiments that aim to produce, or are *reasonably* anticipated to produce one of the effects below have the potential to be DURC:

- Enhance the harmful consequences of the agent;
- Disrupt immunity or the effectiveness of an immunization against the agent without clinical and/or agricultural justification;
- Confer to the agent resistance to clinically and/or agriculturally useful prophylactic or therapeutic interventions against that agent or facilitates their ability to evade detection methodologies;
- Increase the stability, transmissibility, or the ability to disseminate the agent;
- Alter the host range or tropism of the agent;
- Enhance the susceptibility of a host population to the agent; and
- Generate or reconstitutes an eradicated or extinct listed agent.

If you think someone may be misusing biological agents or data in a manner that may be harmful to public health or national security or wish to learn more about DURC, please contact the Biosafety Officer by phone (773-834-2707) or visit the Office of Biological Safety (Abbott Hall, Rm. 120). Your identity will be kept confidential.

The Institutional Biosafety Committee invites persons who have questions or concerns regarding biosafety aspects of their work to contact the Office of Biological Safety (773-834-2707) or go to 947 E. 58th St, Abbott Hall 120.

Additional copies of this booklet can be obtained from the Office of Biological Safety, 947 E. 58th St; Abbott 120. 773-834-2707.