



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Silver Spring, MD 20910  
OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

MEMORANDUM FOR: CAPT Anne K. Lynch  
Director, Homeland Security Program Office

FROM: Dr. Gary C. Matlock *Gary C. Matlock*  
Chair, Research and Development Enterprise Committee

SUBJECT: Dual Use Research of Concern (DURC) Reporting

NOAA is responsible for biannual data reporting of DURC to Department of Commerce (DOC) as part of a U.S. Government policy on reporting DURC. DURC is defined as: "Life sciences research that, based on current understanding, can be reasonably anticipated to provide knowledge, information, products, or technologies that could be directly misapplied to pose a significant threat with broad potential consequences to public health and safety, agricultural crops and other plants, animals, the environment, materiel, or national security"

The Research and Development Enterprise Committee (RDEC) is currently responsible for the biannual data collection and report to DOC. However, this documents our discussion and agreement that the responsibility for the biannual data collection and report to DOC is more appropriately positioned in an operational office with cross line office authority. Accordingly, the RDEC hereby transfers the responsibility to complete the biannual report on DURC to NOAA's Homeland Security Program Office. The 2017 report is attached for reference.

Attachment

Concurrence:

*Gary C. Matlock 11/16/17*  
Dr. Gary C. Matlock  
Chair, Research and Development Enterprise Committee

*Anne K. Lynch 11/22/2017*  
CAPT Anne Lynch  
Director, Homeland Security Program Office

# NOAA-wide Reporting of Life Science Dual Use Research of Concern (DURC)

**FOR ATTENTION OF:** NOAA Homeland Security Program Office

**FROM:** Gary Matlock, Chair, Research and Development Enterprise Committee (RDEC)

**DATE:** July 14, 2017

## PURPOSE

To address the need of an Office responsible for NOAA-wide safety to be responsible for NOAA DURC reporting to the Department of Commerce (DoC).

## THREE THINGS YOU MUST KNOW

- NOAA is responsible for biannual data reporting of DURC to DoC as part of a U.S. Government policy on reporting DURC.
- A sub-committee of the NOAA Research Council, the Research and Development Enterprise Committee (RDEC), is currently responsible for this biannual data collection and report to DoC.
- This responsibility is better suited for an operational office with cross-LO authority, rather than a strategic council or committee such as the NOAA Research Council or the RDEC.

## BACKGROUND

- Life Sciences Dual Use Research of Concern (DURC) is defined as: "Life sciences research that, based on current understanding, can be reasonably anticipated to provide knowledge, information, products, or technologies that could be directly misapplied to pose a significant threat with broad potential consequences to public health and safety, agricultural crops and other plants, animals, the environment, materiel, or national security" (NSABB and NIH).
- The scope of U.S. Government DURC policy includes:
  - Agents and Toxins:
    - a) Avian influenza virus (highly pathogenic)
    - b) *Bacillus anthracis*
    - c) Botulinum neurotoxin
    - d) *Burkholderia mallei*
    - e) *Burkholderia pseudomallei*
    - f) Ebola virus
    - g) Foot-and-mouth disease virus
    - h) *Francisella tularensis*
    - i) Marburg virus
    - j) Reconstructed 1918 Influenza virus
    - k) Rinderpest virus
    - l) Toxin-producing strains of *Clostridium botulinum*
    - m) Variola major virus
    - n) Variola minor virus
    - o) *Yersinia pestis*
  - Experiments:
    - a) Enhances the harmful consequences of the agent or toxin;
    - b) Disrupts immunity or the effectiveness of an immunization against the agent or toxin without clinical or agricultural justification;
    - c) Confers to the agent or toxin resistance to clinically or agriculturally useful prophylactic or therapeutic interventions against that agent or toxin or facilitates their ability to evade detection methodologies;

- d) Increases the stability, transmissibility, or the ability to disseminate the agent or toxin;
- e) Alters the host range or tropism of the agent or toxin;
- f) Enhances the susceptibility of a host population to the agent or toxin;
- g) Generates or reconstitutes an eradicated or extinct agent or toxin listed [at left].

**CURRENT SITUATION**

- The RDEC conducted the data call, compiled the report, and submitted the report to DoC the past few years.
- The most recent two reporting cycles were December 2016 and June 2017. The next reporting cycle is expected in December 2017.
- As of June 2017, the point of contact at DoC is Wesley Johnson (email: wesley.johnson@bis.doc.gov).

**RED FLAGS AND KEY CONSIDERATIONS**

- None.

**RECOMMENDATIONS**

- The Homeland Security Program Office (HSPO) assumes the NOAA responsibility for reporting on DURC to DoC.

**ATTACHMENTS**

1. June 2017 NOAA report on DURC to DoC
2. USG policy on DURC

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December 2017 Dual-Use Research of Concern (DURC) Inventory and Review Report

**Background**

The Department of Commerce conducts and/or funds life science research to develop technology, measurement methods and standards to serve the needs of the chemical, bioscience and health care communities; and to manage fisheries and support marine commerce. The peripheral agencies responsible for these research activities are NIST and NOAA, respectively.

The National Oceanic and Atmospheric Administration has inventoried its grants and contracts and reports the following:

**1. For research being funded by your department/agency (both intramural and extramural), please report to NSS the following:**

- a. The number of projects that utilize any of the 15 agents listed in the DURC Policy**

The National Oceanic and Atmospheric Administration has zero such projects

- b. The number of projects that utilize any of the 15 agents listed in the DURC Policy and that are anticipated to result in any of the 7 listed experimental Effects**

The National Oceanic and Atmospheric Administration has zero such projects

- c. The number of projects involving any of the agents and any of the 7 effects that also meet the definition of "dual use research of concern" listed in the Policy.**

The National Oceanic and Atmospheric Administration has zero such projects

**2. For projects that meet the definition of DURC, please report:**

- a. The associated agent and experimental effects**

The National Oceanic and Atmospheric Administration has zero such projects

- b. At what stage the DURC project was identified (e.g., initial proposal, progress report, other)**

The National Oceanic and Atmospheric Administration has zero such projects

- c. Risks associated with the DURC projects (Using Menu of Risks, provided previously, will also be sent prior to call)**



The National Oceanic and Atmospheric Administration has zero such projects

- d. Extant and proposed risk mitigation strategies for the DURC projects (Using Risk Mitigation Menus, provided previously, will also be sent prior to call)**

The National Oceanic and Atmospheric Administration has zero such projects



**3. As a supplemental report to NSS, please report the following information for any ongoing federally-funded projects involving LPAI H7N9 and MERS-CoV:**

- a. The number of projects involving either LPAI H7N9 virus or MERS-CoV;**

## NOAA Reporting of Life Sciences Dual Use Research of Concern (DURC)



Dr. Gary Matlock  
OAR DAA for Science  
July 2017

## Scope of USG DURC Policy

<h3>Agents and Toxins</h3> <ul style="list-style-type: none"> <li>a) Asian Influenza virus (Highly pathogenic)</li> <li>b) <i>Bacillus anthracis</i></li> <li>c) <i>Botulinum neurotoxin</i></li> <li>d) <i>Burkholderia mallei</i></li> <li>e) <i>Burkholderia pseudomallei</i></li> <li>f) Ebola virus</li> <li>g) Food-and-mouth disease virus</li> <li>h) <i>Francisella tularensis</i></li> <li>i) Marburg virus</li> <li>j) Reconstructed 1918 Influenza virus</li> <li>k) Rinderpest virus</li> <li>l) Toxin-producing strains of <i>Clostridium botulinum</i></li> <li>m) Vesicular stomatitis virus</li> <li>n) Variola major virus</li> <li>o) <i>Yersinia pestis</i></li> </ul>	<h3>Experiments</h3> <ul style="list-style-type: none"> <li>a) Enhances the harmful consequences of the agent or toxin;</li> <li>b) Disrupts immunity or the effectiveness of an immunization against the agent or toxin without clinical or agricultural justification;</li> <li>c) Coverts to the agent or toxin resistance to clinically or agriculturally useful prophylactic or therapeutic interventions against that agent or toxin or facilitates their ability to evade detection methodologies;</li> <li>d) Increases the stability, transmissibility, or the ability to disseminate the agent or toxin;</li> <li>e) Alters the host range or tropism of the agent or toxin;</li> <li>f) Enhances the susceptibility of a host population to the agent or toxin;</li> <li>g) Generates or reconstitutes an eradicated or extinct agent or toxin listed at left.</li> </ul>
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## Definition of DURC

- Life sciences research that, based on current understanding, can be reasonably anticipated to provide knowledge, information, products, or technologies that could be directly misapplied to pose a significant threat with broad potential consequences to public health and safety, agricultural crops and other plants, animals, the environment, materiel, or national security (NSABB and NIH).



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## Reporting Process for DURC

- NOAA is responsible for a biannual accounting report to DoC
- DoC sends a data call in June and December of each year
- POC at DoC (as of June 2017):
  - Wesley Johnson
  - [wesley.johnson@bis.doc.gov](mailto:wesley.johnson@bis.doc.gov)
- Next reporting cycle should be Dec 2017

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## Action Needed

- The NOAA-wide responsibility to report DURC to DoC needs to reside in an operational Office or Council with cross-NOAA purview and responsibility for safety

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