

Recommended Policy Guidance for Departmental Development of Review Mechanisms for Potential Pandemic Pathogen Care and Oversight (P3CO)

Section 1. Introduction

- 1.1. Federal departments and agencies (“agencies”) conducting, supporting, or planning to conduct or support the creation, transfer, or use of enhanced pathogens of pandemic potential should develop review mechanisms that are generally aligned with the approach recommended by the National Science Advisory Board for Biosecurity (NSABB) in its May 2016 report [Recommendations for the Evaluation and Oversight of Proposed Gain-of-Function Research](#) (NSABB Recommendations).
- 1.2. The intent of this document is to recommend consistent and appropriate Federal agency review and reporting processes for the enhanced oversight of Federally funded research that is anticipated to create, transfer, or use enhanced pathogens with pandemic potential.
- 1.3. In areas that are not specified in this recommended policy guidance, agencies should use discretion, although they are urged to consider the *NSABB Recommendations* and to consult with other agencies in formulating their review mechanisms.
- 1.4. Agencies that adopt a review mechanism consistent with the provisions specified below will have satisfied the requirements for lifting that agency’s moratorium on certain gain-of-function research consistent with the October 17, 2014 statement “*U.S. Government Gain-of-Function Deliberative Process and Research Funding Pause on Selected Gain-of-Function Research Involving Influenza, MERS, and SARS Viruses.*”

Section 2. Scope and Definitions

- 2.1. Agency review mechanisms pursuant to this recommended policy guidance should govern creation, transfer, and use of enhanced potential pandemic pathogens, defined below in a way that is meant to capture the activities that were addressed in the *NSABB Recommendations* as “gain-of-function research of concern.”
- 2.2. A *potential pandemic pathogen* (PPP) is one that satisfies both of the following:
 - 2.2.1. It is likely highly transmissible and likely capable of wide and uncontrollable spread in human populations, and
 - 2.2.2. It is likely highly virulent and likely to cause significant morbidity and/or mortality in humans.
- 2.3. An *enhanced PPP* is a PPP resulting from the enhancement of a pathogen’s transmissibility and/or virulence. Wild-type pathogens that are circulating in or have

been recovered from nature are not enhanced PPPs, regardless of their pandemic potential.

- 2.4. Agencies are encouraged to refer to Appendix C of the *NSABB Recommendations* for examples of activities that would and would not be considered to involve enhanced PPPs.
- 2.5. To the extent that transmissibility and/or virulence of PPPs are modified in the following categories of studies, the resulting pathogens are not considered to be enhanced PPPs for the purposes of this recommended policy guidance:
 - 2.5.1. Surveillance activities, including sampling and sequencing; and
 - 2.5.2. Activities associated with developing and producing vaccines, such as generation of high growth strains.
- 2.6. A pathogen previously considered by an agency to be an enhanced PPP should no longer be so considered if the Office of Science and Technology Policy (OSTP) and the agency, in consultation with the Departments of HHS, Defense, Homeland Security, Agriculture, and Justice, generally acting through the Federal Bureau of Investigation, jointly determine, on the basis of additional information that has been developed about the risks or the benefits of that pathogen's creation, transfer or use, that the review mechanisms outlined in this recommended policy guidance are no longer appropriate. The agency should communicate the outcome of this determination to other agencies and the public.

Section 3. Policy Principles

Agency review mechanisms pursuant to this recommended policy guidance should establish that a project involving the creation, transfer, or use of enhanced PPPs should satisfy the following principles, which are based on similar principles in the *NSABB Recommendations*:

- 3.1. The proposal or plan for such a project has been evaluated by an independent expert review process (whether internal or external) and has been determined to be scientifically sound;
- 3.2. The pathogen that is anticipated to be generated by the project must be reasonably judged to be a credible source of a potential future human pandemic;
- 3.3. An assessment of the overall potential risks and benefits associated with the project determines that the potential risks as compared to the potential benefits to society are justified;
- 3.4. There are no feasible, equally efficacious alternative methods to address the same question in a manner that poses less risk than does the proposed approach;
- 3.5. The investigator and the institution where the project would be carried out have the demonstrated capacity and commitment to conduct it safely and securely, and have

the ability to respond rapidly, mitigate potential risks and take corrective actions in response to laboratory accidents, lapses in protocol and procedures, and potential security breaches;

- 3.6. The project's results are anticipated to be responsibly communicated, in compliance with applicable laws, regulations, and policies, and any terms and conditions of funding, in order to realize their potential benefit;
- 3.7. The project will be supported through funding mechanisms that allow for appropriate management of risks and ongoing Federal and institutional oversight of all aspects of the research throughout the course of the project; and
- 3.8. The project is ethically justifiable. Non-maleficence, beneficence, justice, respect for persons, scientific freedom, and responsible stewardship are among the ethical values that should be considered by a multidisciplinary review process making decisions about whether to fund research involving PPPs.

Section 4: Project Review, Approval, and Execution

- 4.1. Agency review mechanisms pursuant to this recommended policy guidance should provide for review procedures for proposed work (intramural and extramural) creating, transferring, or using enhanced PPPs that include provisions for:
 - 4.1.1. Identifying all proposed projects, intramural and extramural, that are anticipated to create, transfer, or use enhanced PPPs, as defined in Section 2.3;
 - 4.1.2. Considering funding only those enhanced PPP projects that are consistent with the policy principles specified in Section 3;
 - 4.1.3. Assessing the risks and benefits of such projects, including how research methodologies may generate risks and/or whether open access to the knowledge, information, products, or technologies generates risk;
 - 4.1.4. Risk mitigation plans that are commensurate with the risk, developed on the basis of the risk assessments, and in collaboration with the institution and researcher, which may draw from the measures listed in Section 5; and
 - 4.1.5. Providing that approved projects creating, transferring, or using enhanced PPPs be funded through vehicles that include risk mitigation measures in the terms and conditions of the project funding award.
- 4.2. Agencies are encouraged to vest oversight for their enhanced PPP review mechanisms in offices that do not report to the head of the agency component that is proposing to

fund the creation, transfer, or use of enhanced PPPs, thereby lessening the potential for perceived internal conflicts of interest.

- 4.3. To promote consistency across agencies and to improve access to experts with diverse expertise, agencies are urged to develop P3CO review mechanisms and procedures that, where appropriate, provide visibility to experts from other agencies.
- 4.4. Resources for the agency review mechanisms must be provided through the agency's budget development process, and additional funding will not be provided on the basis of this recommended policy guidance.

Section 5: Risk Mitigation and Project Oversight

Agency review mechanisms pursuant to this recommended policy guidance should direct that risk mitigation plans for approved projects using, transferring, or creating enhanced PPPs draw from, but need not be limited to, those on the following list, many of which are adapted from Section IV(1)(e) of the *United States Government Policy for the Oversight of Life Sciences Dual Use Research of Concern* (March 29, 2012):

- 5.1. Modifying the design or conduct of the project;
- 5.2. Applying specific or enhanced biosecurity or biosafety measures;
- 5.3. Evaluating existing evidence of medical countermeasures (MCM) efficacy, or conducting experiments to determine MCM efficacy against agents or toxins resulting from the project, and where effective MCM exist, including that information in publications;
- 5.4. Referring the institution to educational tools such as those described in the document [*Tools for the Identification, Assessment, Management, and Responsible Communication of Dual Use Research of Concern: A Companion Guide to the United States Government Policies for Oversight of Life Sciences Dual Use Research of Concern*](#) (September 2014);
- 5.5. Regular review of results from projects involving the creation, transfer, or use of enhanced PPPs;
- 5.6. Determining the venue and mode of communication (addressing content, timing, and when appropriate, the extent of distribution of the information) to communicate results of the project research responsibly; and
- 5.7. If the risks posed by the project cannot be adequately mitigated with these measures, agencies should determine whether it is appropriate to:

- 5.7.1. Request voluntary redaction of publications or communications resulting from the project.¹
- 5.7.2. Classify the project. Agencies will make classification determinations within the scope of their classification authorities and appropriate classification guidelines or may consult with other agencies to make these determinations.
- 5.7.3. Not provide, or terminate funding.

Section 6: Reporting

- 6.1. Agency decisions to fund projects involving creation, transfer, or use of enhanced PPPs should be reported to the Director of OSTP, along with the associated risk benefit analyses and risk management strategies.
- 6.2. In turn, OSTP should share this information, subject to applicable proprietary, privacy, or classification restrictions, among agencies to promote awareness and transparency.
- 6.3. To the maximum extent possible, agencies' enhanced PPP review mechanisms should provide transparency to the public regarding funded projects involving the creation, transfer, or use of enhanced PPPs.

Section 7: Responsibilities of the United States Government

- 7.1. **Evaluation.** If this recommended policy guidance is adopted by agencies, OSTP and NSC staff should, within one year of adoption of the recommendations, coordinate a process for assessing the impact on research programs and institutions of review mechanisms adopted pursuant to this recommended policy guidance; the impact the review mechanism has upon work involving the creation, transfer, or use of enhanced PPPs; and how to provide transparency, public engagement, and continued dialogue about enhanced PPP research.
- 7.2. **Review and Revision.** OSTP, in coordination with NSC staff, should consider modification of this recommended policy guidance after considering the results of any evaluations as described above.
- 7.3. **International Engagement.** Consistent with Recommendation 7 from the *NSABB Recommendations*, the United States Government should engage with other countries

¹ Actions taken to restrict the publication of technology may have implications under export control laws and regulations (e.g., 15 CFR parts 730-774 and 22 CFR parts 120-130).

about policies concerning creation, transfer, and use of enhanced PPPs, encouraging the development of harmonized policy guidance.²

Section 8: Future Commitments

- 8.1. **Integration with Policies on Life Sciences Dual Use Research of Concern.** At such time as the United States Government next considers revision of the March 2012 *United States Government Policy for Oversight of Life Sciences Dual Use Research of Concern* and the September 2014 *United States Government Policy for the Institutional Oversight of Life Sciences Dual Use Research of Concern*, it should consider this recommended P3CO policy guidance in its revisions of the DURC policies. Such a course of action would implement Recommendation 4 of the *NSABB Recommendations*, which states that “In general, oversight mechanisms for *[work with enhanced potential pandemic pathogens]* should be incorporated into existing policy frameworks when possible.” It is also consistent with, although not sufficient to fully implement, Recommendation 5, which states that “the U.S. government should consider ways to ensure that all *[work with enhanced potential pandemic pathogens]* conducted within the U.S. or by U.S. companies be subject to oversight, regardless of funding source.”³
- 8.2. **Extending P3CO beyond Federal Funding.** Upon receipt of the first evaluation of this recommended policy guidance as described above in section 7.1, the Office of Science and Technology Policy and National Security Council staff should initiate a process to consider whether policy approaches should be proposed to fully implement Recommendation 5 of the *NSABB Recommendations*, which calls for the U.S. Government to introduce oversight not only as a term and condition of a funding award but also via other mechanisms that would enable oversight of all relevant research activities, regardless of the funding source.

Section 9. Savings Clause

- 9.1. This recommended policy guidance is not binding on agencies and does not supersede or abrogate any existing requirements or restrictions under applicable statute, executive order, presidential directive, regulation, or international agreement or obligation for agencies adopting them.

² Recommendation 7 of the *NSABB Recommendations* states that “The U.S. government should engage the international community in dialogue about the oversight and responsible conduct of GOF research of concern,” where “GOF research of concern” would correspond in this recommended policy guidance to “creation, transfer, and use of enhanced PPPs.”

³ In the *NSABB Recommendations*, the text replaced by the bracketed phrases had read “gain-of-function research of concern.”