**Biological Use Authorization (BUA) Application**

**Required for Biological Use Authorization from the Institutional Biosafety Committee (IBC)**

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| This application is for new projects and renewals of existing research projects involving biohazards including recombinant or synthetic DNA/RNA. Research with biohazards requires review and approval by the UW Institutional Biosafety Committee (IBC) and EH&S Biological Safety. Refer to the EH&S [Biological Research Approval](https://www.ehs.washington.edu/biological/biological-research-approval) webpage for more information about the review process. |
| 1. Complete all questions as they apply to your research project. Fields will expand as needed.
 |
| 1. Submit completed application and any supplemental documents, SOPs, or permits to EH&S Biological Safety at ehsbio@uw.edu or by responding to your BUA renewal request email ticket.
 |
| 1. Helpful resources for completing this application:
 |
| * + [BUA Application FAQs](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs)
	+ [UW Biosafety Manual](https://www.ehs.washington.edu/resource/biosafety-manual-4)
	+ [EH&S Biosafety Training](http://www.ehs.washington.edu/training/biosafety-training-online)
	+ [NIH Guidelines for Rec/Synth Nucleic Acids](https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.htm)
	+ [NIH Guidelines Experiments in Animals Table](https://osp.od.nih.gov/wp-content/uploads/2022/11/Animal_Activities_Table.pdf)
 | * + [Biosafety for Micro/Biomedical Labs (BMBL)](https://www.cdc.gov/labs/BMBL.html)
	+ [UW Bloodborne Pathogens](https://www.ehs.washington.edu/biological/bloodborne-pathogens-bbp-program)
	+ [EH&S Viral Vectors for Gene Transfer](https://www.ehs.washington.edu/biological/viral-vectors-gene-transfer)
	+ [E. coli strains and NIH Guidelines](https://blink.ucsd.edu/safety/research-lab/biosafety/nih/e-coli.html)
	+ [Canadian Pathogen Safety Data Sheets](https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment.html)
 |
| **EH&S Biological Safety ·** **ehsbio@uw.edu** **· Box 357165 · 206-221-7770**  |

**General Project Information**

|  |  |  |
| --- | --- | --- |
| **Date Submitted**       | **Project Title**       | [ ]  Check here if the title has changed  |
| **Application Type**[ ]  New [ ]  Renewal: BUA#     -   -    | **[IACUC Protocol Number](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs%22%20%5Cl%20%22GP3)**     -  Provide only if applicable to biohazards used in animals in this BUA application. Only one IACUC protocol can be associated with a single BUA. | **[Human Subjects Division Number(s)](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs%22%20%5Cl%20%22GP4)**      Provide only if applicable to the research in this BUA application. |
|  | **Name** | **Daytime Phone** | **Preferred Email** | **UW NetID** | **Advanced Degree(s)** | **Position** **or Title** |
| **Principal Investigator (PI)** |       |    .   .     |       |       |       |       |
| **Lab Contact** if different than PI |       |    .   .     |       |       |       |       |
| **PI’s Emergency Contact Number:**      Provide a cell phone, pager, or home phone number for the PI to be used in case of emergencies. Do not list your daytime office line.  |
| **Department**       | **Division** if applicable       | **Box Number**       |
| [ ]  Yes [ ]  No  | Is there a target date for funding or approval that EH&S needs to be aware of? If yes, provide information:       |
| [ ]  Yes[ ]  No  | Do you have or need permits for this project (e.g., [USDA-APHIS](https://www.aphis.usda.gov/aphis/resources/permits), [CDC Import Permits](https://www.cdc.gov/cpr/ipp/))? If yes, specify and submit a copy of the permit(s) with this application:       |

**Research Description**

1. Provide a short description of the overall goals of the research using lay terms. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#RD1)

1. Provide a description of the various laboratory procedures involving biohazardous agents, including all work with recombinant or synthetic DNA/RNA. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#RD2)
2. Describe what element(s) of your research pose the greatest **biohazardous** risk to laboratory personnel. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#RD3)

**Hazard Identification**

|  |
| --- |
| **Transgenic Plants**Does this project involve any of the following?  |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Use of transgenic plants? Describe (provide genus, species):       |
|  |  |  | Yes | No |  |
|  |  | a. | [ ]  | [ ]  | [Invasive species or noxious weeds](http://www.nwcb.wa.gov/). Describe:       |
|  |  | b. | [ ]  | [ ]  | Can the transgenic plants survive in the immediate geographic area? Describe:       |
|  |  | c. | [ ]  | [ ]  | Can the transgenic plants interbreed with regional native species or noxious weeds? Describe:       |
|  |  | d. | [ ]  | [ ]  | Will any of your work involve plant pathogens? Describe:       |
|  | [ ]  | [ ]  | Harvest of or work with seeds and/or spores from transgenic plants? Provide genus and species:       |
|  | [ ]  | [ ]  | Use of transgenic plants in the UW Life Sciences Greenhouse? Describe:       |
|  | [ ]  | [ ]  | Use of transgenic plants in the field? Describe:       |
|  | [ ]  | [ ]  | Use of recombinant or synthetic DNA/RNA in plants (somatic cells or germ-line transgenics). Describe.       |
| **Field Work and Environmental Sampling** |
|  | Yes | No |
|  | [ ]  | [ ]  | Does this project involve any field work or environmental sampling? Describe.       |
| **Contact with Animals** |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Does this project involve any contact with animals, including laboratory or wild animals, invertebrates, and insects. List species:       |
| **Tissue, Blood, and Body Fluids**Does this project involve tissue, blood, or body fluids? List name or type. |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Human:       |
|  | [ ]  | [ ]  | Non-human primate:       |
|  | [ ]  | [ ]  | Other animals:       |
|  | [ ]  | [ ]  | Are tissues or cells administered to animals or transplanted between species? Describe and include species:       |
| **Culture of Primary Cells or Cell Lines**Does this project involve primary cells or cell lines? List name or type of cell lines. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CC1)  |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Human:       |
|  | [ ]  | [ ]  | Use of human embryonic stem cells (hESCs)? [ESCRO](https://www.washington.edu/research/embryonic-stem-cell-research-oversight-escro/) review required. |
|  | [ ]  | [ ]  | Non-human primate:       |
|  | [ ]  | [ ]  | Other animals (e.g., mice, canines, zebrafish):       |
| **Creation or Use of Induced Pluripotent Stem Cells (iPSCs)** Does this project involve the use or generation of induced pluripotent stem cells (iPSCs)? (Research with iPSCs may require [ESCRO](https://www.washington.edu/research/embryonic-stem-cell-research-oversight-escro/) review and approval.) [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CC2) |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Use of induced pluripotent stem cells (iPSCs)? List species of cells and the method(s) and reprogramming factors used to create each iPS cell line (e.g., human iPSCs made with Sendai viral vector with Yamanaka factors):       |
| 1.
 | [ ]  | [ ]  | Generation of iPSCs? List the species of cells and method(s) and reprogramming factors that will be used to generate iPSCs (e.g., murine iPSCs made with plasmids expressing Thomson factors):       |
|  | [ ]  | [ ]  | If iPSCs were made with viral vectors, have they been tested and shown to be free of replication competent virus (RCV)? If tested, submit results to EH&S with this application. |
|  | [ ]  | [ ]  | Use of iPSCs in animals? Specify which iPSCs and which species of animal:       |
| **Bloodborne Pathogens (BBP)** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#BBP1) |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Does this project involve work with bloodborne pathogens or drawing, processing, working with, or storing human blood, tissue, cells, cell lines, or body fluids visibly contaminated with blood or other potentially infectious materials ([OPIM](http://www.ehs.washington.edu/biological/bloodborne-pathogens-bbp-program))? If yes, the [Washington State Bloodborne Pathogens (BBP) Rule](http://app.leg.wa.gov/wac/default.aspx?Cite=296-823) applies. [BBP program](http://www.ehs.washington.edu/biological/bloodborne-pathogens-bbp-program) requirements include completion of the following:1. Annual [Bloodborne Pathogens for Researchers Training](https://www.ehs.washington.edu/training/bloodborne-pathogens-researchers-online)
2. [Site-specific BBP Exposure Control Plan](http://www.ehs.washington.edu/system/files/resources/bbpecp.docx): Submit with this application.
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| **Wildtype Microorganisms** (Bacteria, Viruses, Yeasts, Fungi, Parasites, and Prions) |
|  |  |  |  |
| 1. **Wildtype Microorganism Table** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#WM1)
 |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Will wildtype/non-genetically modified microorganisms be used? If yes, complete the table below with the wildtype microorganisms that you use in this project. If you need additional space, fill out the [Wildtype Microorganism Supplemental](https://www.ehs.washington.edu/system/files/resources/bua-wildtype.docx) form. If using any influenza viruses, also complete the [Influenza Virus Supplemental Form](https://www.ehs.washington.edu/system/files/resources/bua-influenza.docx). If not using wildtype microorganisms, proceed to Question 26. |

|  |  |  |
| --- | --- | --- |
| 1. **Genus and species.** Include strain information that may impact risk assessment within species.
 | 1. [**Risk Group (RG)**](https://my.absa.org/tiki-index.php?page=Riskgroups)

**1, 2 or 3** | 1. **Administered to animals or plants?** If yes, specify species and method of administration.
 |
| *EXAMPLE: Vaccinia virus, NYCBH strain* | *EXAMPLE: RG 2* | *EXAMPLE: IP injection to mice and rats* |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       | [ ]  Yes. Describe:      [ ]  No |
|  | Yes | No |  |
| 1.
 | [ ]  | [ ]  | Are any of the wildtype microorganisms listed above resistant to frontline therapeutics or would require specialized treatment if infection occurred? Include naturally resistant organisms and clinical strains. If yes, list and describe:       |

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| **Recombinant Microorganisms** (Bacteria, Viruses, Yeasts, Fungi, Parasites, and Prions) |
| 1. **Recombinant Microorganism Table** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#RM1)
 |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Will recombinant or genetically modified microorganisms be used or created? If yes, complete the table below with the recombinant organisms that you will use or create in this project. If you need additional space, fill out the [Recombinant Microorganism Supplemental](https://www.ehs.washington.edu/system/files/resources/bua-recombinant.docx) form. If using any influenza viruses, also complete the [Influenza Virus Supplemental Form](https://www.ehs.washington.edu/system/files/resources/bua-influenza.docx). If not using recombinant microorganisms, proceed to Question 31. |
| 1. **Genus and species.** Include strain information that may impact risk assessment within species.
 | 1. [**Risk Group (RG)**](https://my.absa.org/tiki-index.php?page=Riskgroups) **1, 2 or 3**
 | 1. **Describe the genetic modifications** that you propose to make or that have been made.
 | 1. **Administered to animals or plants?** If yes, specify species and method of administration.
 |
| *EXAMPLE: Pseudomonas aeruginosa GFP (ATCC 15692)* | *EXAMPLE:* *RG 2* | *EXAMPLE: Expresses GFP under control of P-lac promoter (E. coli)* | *EXAMPLE: IP and footpad injection to mice* |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|       | RG       |       | [ ]  Yes. Describe:      [ ]  No |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Will antibiotic resistance be conferred to any of the microorganisms listed above? List species and antibiotic resistance:       |
|  | [ ]  | [ ]  | Are any of the recombinant microorganisms listed above resistant to antibiotics, antivirals, antifungals, or frontline therapeutics? Refer to the [Sanford Guide](https://www.offcampus.lib.washington.edu/login?url=https://webedition.sanfordguide.com/) (UW log-in required to access) List and describe:       |
|  | [ ]  | [ ]  | Will any of the genetic changes listed above alter the virulence or tropism of the organism? Describe:       |
|  | [ ]  | [ ]  | Is there potential for any recombinant infectious agents listed above to be released or shed from animals or plants? [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#RM2) Describe:       |

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| **Select Agents** The [Federal Select Agent Program (FSAP)](https://www.selectagents.gov/) oversees the possession, use and transfer of biological select agents and toxins that have the potential to pose a severe threat to public health or to animal or plant products.  |
| 1. **Select Agent Table**
 |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Will this project involve any [Select Agents](https://www.selectagents.gov/sat/list.htm), **including** [**excluded**](https://www.selectagents.gov/sat/exclusions/index.htm) **or attenuated strains**? [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#SA1)If yes, complete the table below. If no, continue to Question 32. |
| 1. **Select Agent:**

Genus, species, strain name (if applicable). | 1. **Excluded?**

Is it excluded from FSAP regulations? | 1. **Strain Information:**

Describe the strain and/or any genetic modifications made to this agent. If excluded or attenuated, include the rationale for why the agent is excluded. | 1. **Source:**

List the source and form of the select agent. |
| *EXAMPLE: Ebola virus strain ΔVP30* | *EXAMPLE:* *Yes [x]  No [ ]*  | *EXAMPLE: ΔVP30 is excluded as it lacks the gene encoding for the VP30 protein so it is replication incompetent and cannot form infectious progeny* | *EXAMPLE: cDNA clone from collaborators at Georgina University* |
|       | Yes [ ]  No [ ]  |       |       |
|       | Yes [ ]  No [ ]  |       |       |
|       | Yes [ ]  No [ ]  |       |       |
|       | Yes [ ]  No [ ]  |       |       |
|       | Yes [ ]  No [ ]  |       |       |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Are you working with any of the subset of select agents or toxins that are subject to [Dual Use Research of Concern (DURC)](https://www.ehs.washington.edu/biological/select-agent-program/dual-use-research-concern-durc)? Describe:       |
|  | [ ]  | [ ]  | Will you be conducting any of the following types of experiments involving select agent microorganisms, chimeric viruses, or nucleic acids from select agents? [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#SA2) |
|  |  |  | Yes | No |  |
|  |  | a. | [ ]  | [ ]  | [Positive strand RNA forms of select agent complete viral genomes](https://www.selectagents.gov/compliance/guidance/nucleic/regulated.htm) that can be translated into protein precursors for virus production. Describe:       |
|  |  | b. | [ ]  | [ ]  | Genetic or other modifications of an [excluded select agent strain](https://www.selectagents.gov/sat/exclusions/index.htm) that could modify the attenuation such that virulence or toxic activity is restored or enhanced? Describe:       |
|  |  | c. | [ ]  | [ ]  | Creating or working with chimeric viruses whose genomes contain the backbone and replication machinery of a select agent virus or contain genes from different select agent viruses? Describe:       |
|  |  | d. | [ ]  | [ ]  | Creating or working with chimeras composed of select agents and non-select agents from the same virus family? Describe:       |
|  | [ ]  | [ ]  | Will you be conducting any of the following types of experiments involving select toxins? |
|  |  |  | Yes | No |  |
|  |  | a. | [ ]  | [ ]  | Work with select toxins including in [permissible amounts](https://www.selectagents.gov/sat/permissible.htm)? Describe:       |
|  |  | b. | [ ]  | [ ]  | Recombinant or synthetic nucleic acids encoding for the toxic form(s) of regulated select toxins? Describe:       |

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| **Recombinant and Synthetic DNA and RNA (rDNA)** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs%22%20%5Cl%20%22DNA1)For each question, check if you will perform the experiments in this project and describe when applicable. |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Does this project include the use of any form of recombinant or synthetic DNA/RNA (rDNA)? Refer to the [NIH Guidelines](https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.htm) and [EH&S Experiments Covered by the NIH Guidelines](https://www.ehs.washington.edu/system/files/resources/experiments-NIH-guidelines.pdf) for more information. If yes, complete the questions below. If no, proceed to question 53. |
|  | **Section III-F (Experiments exempt from the NIH Guidelines)** |
|  | Yes | No |  |
|  | [ ]  | [ ]  | 1. rDNA that is not in organisms or viruses, such as rDNA used in PCR, probes or primers, or DNA/RNA sequencing?
 |
|  | [ ]  | [ ]  | 1. Use of rDNA in microorganisms that are exempt under Section III-F and Appendix C of the [NIH Guidelines](https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.htm) (i.e., E. coli K-12, S. cerevisiae, B. subtilis)? Describe:
 |
|  | [ ]  | [ ]  | 1. Use of transgenic rodents requiring ABSL-1?
 |
|  | **Section III-E (Experiments that require IBC notice simultaneous with initiation)** |
|  | Yes | No |  |
|  | [ ]  | [ ]  | 1. rDNA with liposome complex, nanoparticles, or other modifications that render it capable of penetrating cellular membranes? Describe:
 |
|  | [ ]  | [ ]  | 1. rDNA molecules containing no more than two-thirds of the genome of any eukaryotic virus propagated or maintained in cells or tissue culture? Describe:
 |
|  | [ ]  | [ ]  | 1. Creation of transgenic rodents requiring ABSL-1? Describe:
 |
|  | [ ]  | [ ]  | 1. Use of [E. coli strains](https://blink.ucsd.edu/safety/research-lab/biosafety/nih/e-coli.html) other than K-12 for cloning/protein expression. Describe:
 |
|  | **Section III-D (Experiments that require IBC approval prior to initiation)**  |
|  | Yes | No |  |
|  | [ ]  | [ ]  | 1. Use or creation of rDNA modified pathogenic microorganisms (Risk Group 2 and higher)? Describe:
 |
|  | [ ]  | [ ]  | 1. Nucleic acids from Risk Group 3 or 4 agents cloned into prokaryotes or lower eukaryotes including E. coli K-12 strains? Describe:
 |
|  | [ ]  | [ ]  | 1. Viral vectors for gene transfer and/or use of cell lines transduced with viral vectors? If yes, complete Questions 45-52 and describe:
 |
|  | [ ]  | [ ]  | 1. Plasmid containing an entire viral genome or an infectious clone. Describe:
 |
|  | [ ]  | [ ]  | 1. Administration of rDNA to animals, including transfected/transduced cells, mRNA, plasmids, and/or any genetically modified microorganism? Describe:
 |
|  | [ ]  | [ ]  | 1. Creation, breeding, or use of transgenic animals other than rodents, including invertebrates? List species:
 |
|  | [ ]  | [ ]  | 1. Large-scale culture (>10 L in a single vessel) of any recombinant microorganisms? Describe:
 |
|  | [ ]  | [ ]  | 1. Use or creation of recombinant influenza viruses? If yes, complete the [Influenza Virus Supplemental Form](https://www.ehs.washington.edu/system/files/resources/bua-influenza.docx) and attach it to your BUA application submission. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#DNA2)
 |
|  | [ ]  | [ ]  | 1. Development of gene-drive modified organisms (GDMOs)? Or will transgenes or combinations of transgenes result in the preferential inheritance of recombinant DNA? Refer to the [NIH GDMO reference](https://osp.od.nih.gov/wp-content/uploads/2024/03/gdmo-reference.pdf). Describe:
 |
|  | **Section III-C (Experiments that require IBC and IRB approval before enrolling participants)**  |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Human gene transfer or administration of any recombinant or synthetic nucleic acid to humans? If yes, STOP and submit [Clinical Trial BUA application](https://www.ehs.washington.edu/biological/clinical-trials). |
|  | **Section III-B (Experiments that require NIH and IBC approval prior to initiation)** Refer to [NIH FAQ on toxin experiments](https://osp.od.nih.gov/policies/biosafety-and-biosecurity-policy/faqs-on-toxin-experiments/). |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Cloning of toxin molecules with a LD50 less than 100 ng/kg? Describe:       |
|  | **Section III-A (Experiments that require NIH Director and IBC approval prior to initiation)** |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Deliberate transfer of drug resistance to a microorganism that is not known to acquire it naturally and that could compromise treatment or control? Describe:       |
|  | **Recombinant or Synthetic DNA/RNA Activities**Will this project include any of the following: |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Use of gene editing technologies (e.g., CRISPR/Cas9)? Describe construct, delivery method, and gene targets:        |
|  | [ ]  | [ ]  | Environmental release or field testing of genetically engineered organisms? Describe:       |
|  | [ ]  | [ ]  | Experiments involving genes coding for toxin molecules with an LD50 of <100 micrograms per kilograms and >100 nanograms per kilograms body weight? If so, registration with NIH is required prior to initiating the experiments. Refer to [NIH Guidelines](https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.htm) Appendix F. Describe:       |

|  |  |
| --- | --- |
| 1.
 | **Viral Vector and Gene Delivery Methods Table** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD1)List all [viral vectors](https://www.ehs.washington.edu/biological/viral-vectors-gene-transfer), gene delivery methods, transduced or transfected cells, and other forms or recombinant or synthetic nucleic acids in the table below. If additional spaces are needed, complete and submit the [Viral Vector and Gene Delivery Methods Supplemental](https://www.ehs.washington.edu/system/files/resources/bua-genedelivery.docx). For large numbers of genes, attach a complete list of genes. For large numbers of genes not yet identified, complete question 49. |
|  |  |  |  |  |  |
| **Viral Vector System, Gene Delivery Method, or Transduced or Transfected Cells:** Choose system and describe as needed. | **Replication Status:** Choose [replication status](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD2) and describe if needed. If RCV tested, submit results.  | **Transgenes:** List[gene inserts](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD3) to be overexpressed or knocked down. Use [RefSeq](http://www.ncbi.nlm.nih.gov/refseq/rsg/) gene names. | [**In vitro**](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD4) **use: Will the vector system be used with cells?**Specify cell species/type and activities as applicable. | [**In vivo**](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD5) **use: Will the vector or modified cells be administered to an animal?** If so, specify animal species, method of administration, and exactly what will be administered to the animal. | **Is this created in your lab?** |
| *EXAMPLE: Other (explain): mRNA in nanolipid carrier*  | *EXAMPLE: Not applicable (non-viral)*  | *EXAMPLE: GFP, RFP, T cell Receptors* | *EXAMPLE: Human PBMCs will be transduced to encode the T cell receptors* | *EXAMPLE: Human cells transfected with DNA implanted into mice footpads* | *(No description needed.)* |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |
| Click here to select. Describe if needed:       | Click here to select.Describe if needed:        |       | [ ]  Yes:      [ ]  No | [ ]  Yes:      [ ]  No | [ ]  Yes[ ]  No |

|  |
| --- |
| **Replication Competent Viral Vectors and Transduced Cells** |
|  | Yes | No | N/A |  |
| 1. 48.
 | [ ]  | [ ]  | [ ]  | Is there potential for release or shedding of replication competent viral vectors from exposed cells, animals, or plants? [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD6) Describe:       |
| **Third Generation Lentiviral Vectors**Refer to [Third Generation Lentiviral Vectors](http://www.ehs.washington.edu/system/files/resources/third-gen-lenti.pdf) for more information. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD7) |
|  | Yes | No | N/A |  |
| 1. 50.
 | [ ]  | [ ]  | [ ]  | If using third generation lentiviral vectors, list all four plasmids and provide information or link to Addgene if available. Refer to the [Addgene Lentivirus Guide](https://www.addgene.org/guides/lentivirus/).1. Packaging plasmid 1 (gag/pol):
2. Packaging plasmid 2 (rev):
3. Transfer plasmid:
4. Envelope plasmid:
 |
|  |
| **Gene Inserts** |
| 1.
 | For research involving a large number of genes not yet identified, list the categories or general functions of the genes. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GI1)       |
|  |  |  |  |
| **Oncogenes and Tumor Suppressor Genes** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#OG1) |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Do any of your proposed genes appear in the following databases? Use common [RefSeq](http://www.ncbi.nlm.nih.gov/refseq/rsg/) gene names. If yes, they are likely oncogenes or tumor suppressors.1. [*Cancer Gene Census*](http://cancer.sanger.ac.uk/cosmic/census/tables?name=symbol) List:
2. [*Cancer Genetics Web*](http://www.cancer-genetics.org/genes_a.htm) List:
 |
|  | [ ]  | [ ]  | Are any of your proposed genes well described in the scientific literature as oncogenes or tumor suppressors? If yes, list genes, describe and cite sources:       |
|  | [ ]  | [ ]  | Do you have other reasons to believe that your proposed genes are oncogenes or tumor suppressors? If yes, list genes and describe:       |
|  | [ ]  | [ ]  | If yes to any of the four preceding questions, are you overexpressing or dysregulating oncogenes or knocking down or silencing tumor suppressors? The IBC will consider this when setting biocontainment for this work. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#OG2) Describe:        |

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| **Transgenic Animals**If this project involves the creation, breeding or use of genetically modified animals, complete the table below. Note: Transgenic animals include vertebrates and invertebrates such as *Drosophila*, mosquitoes, fish, *Caenorhabditis elegans*, oysters, frogs, mice, rats, and pigs. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#TA1) |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Are you using, creating, or breeding any transgenic animals?  |
| 1. **List species of transgenic animals.**
 | **Species:**       | **Species:**       | **Species:**       |
| 1. **List all strains for each species.**
 |       |       |       |
| 1. **Are you creating transgenic animals?**
 | [ ]  Yes [ ]  No Specify method:       | [ ]  Yes [ ]  No Specify method:       | [ ]  Yes [ ]  No Specify method:       |
| 1. **Are you generating transgenic rodents through the Dept. of Comparative Medicine?**
 | [ ]  Yes [ ]  No Specify space:       | [ ]  Yes [ ]  No Specify space:       | [ ]  Yes [ ]  No Specify space:       |
| 1. **Are you breeding transgenic animals?**

**If yes, select all that apply.** | [ ]  Yes [ ]  No[ ]  Breeding of rodents that have a gene encoding more than fifty percent of an exogenous eukaryotic virus[ ]  Breeding of rodents in which the transgene is under the control of a gammaretroviral long terminal repeat (LTR) | [ ]  Yes [ ]  No[ ]  Breeding of rodents that have a gene encoding more than fifty percent of an exogenous eukaryotic virus[ ]  Breeding of rodents in which the transgene is under the control of a gammaretroviral long terminal repeat (LTR) | [ ]  Yes [ ]  No[ ]  Breeding of rodents that have a gene encoding more than fifty percent of an exogenous eukaryotic virus[ ]  Breeding of rodents in which the transgene is under the control of a gammaretroviral long terminal repeat (LTR) |
| 1. **Will transgenic animals generated or used have the potential to produce or release toxic or infectious products?**
 | [ ]  Yes [ ]  NoDescribe:       | [ ]  Yes [ ]  NoDescribe:       | [ ]  Yes [ ]  NoDescribe:       |

**Hazard Control**

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| --- |
| **Containment Requirements**  |
|  | What biosafety level(s) are recommended for your work according to the NIH Guidelines and the CDC’s *Biosafety in Microbiological and Biomedical Laboratories* (*BMBL*)? [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CR1) |
|  |  | [Laboratory](http://www.ehs.washington.edu/biological-use-authorization-bua-application-faqs#CR1): | [ ]  BSL-1 | [ ]  BSL-2 | [ ]  [BSL-2 w/3 practices](https://www.ehs.washington.edu/system/files/resources/BSL2-with-3-info.pdf) | [ ]  BSL-3 |
|  |  | [Animal Facility](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CR3): | [ ]  ABSL-1 | [ ]  ABSL-2 | [ ]  ABSL-2 w/3 practices | [ ]  ABSL-3 |
|  |  | Plant Facility: | [ ]  BSL-1P | [ ]  BSL-2P | [ ]  Field Work |  |
|  |  | Arthropods: | [ ]  ACL-1 | [ ]  ACL-2 |  |  |
| **Facilities**List each UW research space where you will perform work with biohazardous agents. Include buildings, room numbers, biohazardous agents, activities, biosafety level, and PPE and safety equipment present. |
|  |  |
|  | **In Vitro Use** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CR2) |
| **Building/Room** | **Biohazardous Agents and Activities** | **BSL, PPE, and Safety Equipment** |
| *EXAMPLE: Life Sciences Building T287* | *EXAMPLE: Human cell culture and lentiviral vectors. Sequencing of P. aeruginosa.*  | *EXAMPLE: BSL-2 room with biosafety cabinet. Lab coats and gloves required. Face shields are available.* |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |

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|  | **Animal Use** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CR3) |
| **Building/Room** | **Biohazardous Agents and Activities** | **BSL, PPE, and Safety Equipment** |
| *EXAMPLE:**SLU 3.1 ABSL-2 Vivarium* | *EXAMPLE: Aerosol exposure of mice to bacteria. Injection of recDNA vaccine into mice.* | *EXAMPLE: ABSL-2 procedure rooms with biosafety cabinet. Standard DCM ABSL-2 PPE.* |
|       |       |       |
|       |       |       |
|       |       |       |
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|  | **Shared Core Facilities** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#CR4) (e.g., MRI, cell sorting, flow cytometry, stem cell core, UW Greenhouse) |
| **Facility/Building/Room** | **Biohazardous Agents and Activities** | **BSL, PPE, and Safety Equipment** |
| *EXAMPLE:**Immunology Cell Analysis Facility (E386A, E386B)* | *EXAMPLE: Cell sorting of human and non-human primate cells, imaging of mice exposed to lentiviral vectors.* | *EXAMPLE: BSL-2 microscopy and imaging room. Lab coat and gloves worn.* |
|       |       |       |
|       |       |       |
|       |       |       |
|       |       |       |
| If additional spaces are needed, complete and submit the [BUA Facilities Supplemental](https://www.ehs.washington.edu/system/files/resources/bua-rooms.docx). |
| **Equipment** |
|  | This project includes use of the following equipment with aerosol-generating potential: |
|  | [ ]  Centrifuge  | [ ]  Syringes/needles | [ ]  French press | [ ]  Homogenizer |
|  | [ ]  Cell sorter | [ ]  Sonicator  | [ ]  Automation/robotics | [ ]  Aerosol chamber |
|  | This project includes use of the following equipment with engineered safety features. |
|  | [ ]  Biological safety cabinet | [ ]  Safety cups or sealed rotors for centrifuges |
|  | [ ]  Aerosol management system for equipment  | [ ]  Engineered safe sharps |
|  | [ ]  Splash shields (benchtop or equipment) | [ ]  Other (specify):       |
|  | Yes | No |  |
|  | [ ]  | [ ]  | This project involves specific procedures that pose an increased risk for exposure (e.g., aerosol generating procedures performed openly on the lab bench). List:        |
|  | [ ]  | [ ]  | I have laboratory processing equipment (e.g., shaker, centrifuge, incubator) located in a corridor outside of my laboratory suite. If yes, complete the following: |
|  |  |  | Yes | No |  |
|  |  |  | [ ]  | [ ]  | Storage/use of this equipment complies with [UW Corridor Safety](https://www.ehs.washington.edu/system/files/resources/corridor-safety.pdf) policies. |

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| **General Biosafety Laboratory Practices**Reference the [UW Biosafety Manual (BSM)](https://www.ehs.washington.edu/resource/biosafety-manual-4). |
|  | Yes | No |  |
|  | [ ]  | [ ]  | I have a current [BSM](https://www.ehs.washington.edu/resource/biosafety-manual-4) that is available to staff. |
|  | [ ]  | [ ]  | I have written decontamination procedures for equipment and surfaces. Refer to Section 4 in the [BSM](https://www.ehs.washington.edu/resource/biosafety-manual-4). |
|  | [ ]  | [ ]  | I use appropriate decontaminants with the appropriate contact time for the agents I work with. List disinfectants used:       |
|  | [ ]  | [ ]  | All biological waste is decontaminated prior to disposal. Methods used include the following: |
|  |  |  | [ ]  Autoclaved on-site by the laboratory. Specify location:       |
|  |  |  | [ ]  Transported to an autoclave cost center. Specify location:       |
|  |  |  | [ ]  Waste is shipped off-site. |
|  | [ ]  | [ ]  | Biohazardous materials are transported between UW buildings according to the biohazard transport policy in Appendix C of the UW Biosafety Manual. If yes, specify the transportation method:        |
|  | [ ]  | [ ]  | Biological agents are transported within buildings in leak-proof, secondary containers. |
|  | [ ]  | [ ]  | I have procedures in place for the safe use and handling of [sharps](https://www.ehs.washington.edu/biological/sharps-and-laboratory-glass) that I work with. |
|  | [ ]  | [ ]  | [First aid and medical follow-up procedures](https://www.ehs.washington.edu/system/files/resources/exposure-response-poster.pdf) are in place in the event of an exposure incident.  |
|  | [ ]  | [ ]  | A biohazard label is affixed to equipment used for biological agents when appropriate. |
|  | [ ]  | [ ]  | A [biohazard door sign](https://www.ehs.washington.edu/system/files/resources/biohazard-sign.pdf) is posted as required. |
|  | [ ]  | [ ]  | This project involves shipping of biological materials or importation of biological materials from other countries. |
|  | [ ]  | [ ]  | I have other written biosafety standard operating procedures (SOPs). List.       |
| **Personal Protective Equipment**Refer to [WAC 296-800-160](http://apps.leg.wa.gov/wac/default.aspx?cite=296-800-160) and [UW APS 10.4](http://www.washington.edu/admin/rules/policies/APS/10.04.html) for applicable regulations. |
|  | Yes | No |  |
|  | [ ]  | [ ]  | I have identified the PPE requirements for each proposed activity associated with this project and will enforce the use of required PPE. Use the [Laboratory PPE Hazard Assessment Guide](https://www.ehs.washington.edu/system/files/resources/lab-ppe-hazard-assessment.docx). |
|  | [ ]  | [ ]  | Protective lab coats designed for lab use are worn while working with hazardous materials. |
|  | [ ]  | [ ]  | A [lab coat laundering service](https://www.ehs.washington.edu/about/latest-news/lab-coat-laundry-requirements-labs-work-biohazards) has been identified for routine cleaning of reusable lab coats. |
|  | [ ]  | [ ]  | This project involves tasks with the potential for splash/splatter to mucous membranes. These tasks require the following PPE: |
|  |  |  | [ ]  Safety glasses | [ ]  Goggles | [ ]  Face shield |
|  |  |  | [ ]  Surgical mask | [ ]  Other (specify):       |
|  | [ ]  | [ ]  | This project involves tasks with an inhalation risk from infectious aerosols used outside of containment. |
|  | [ ]  | [ ]  | Gloves are inspected before use and are changed when contaminated, when integrity has been compromised, and when otherwise necessary. |
|  | [ ]  | [ ]  | PPE is removed before entering non-contaminated areas (e.g., public hallways, lunchrooms). |
|  | [ ]  | [ ]  | PPE is removed in an order that minimizes cross-contamination. |

**Other Hazards**

|  |
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| **Chemical Hazards**Does this project involve the following? Follow the [UW Laboratory Safety Manual (LSM)](https://www.ehs.washington.edu/resource/laboratory-safety-manual-510). |
|  | Yes | No |  |
|  | [ ]  | [ ]  | [Particularly Hazardous Substances](https://www.ehs.washington.edu/resource/particularly-hazardous-substances-655) as defined by the [LSM](https://www.ehs.washington.edu/resource/laboratory-safety-manual-510). List:       |
|  | [ ]  | [ ]  | [Toxins of biological origin](https://www.ehs.washington.edu/resource/biological-toxin-safe-work-practices-65) (e.g., tetrodotoxin, botox, diphtheria toxin). [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#BT1) List:       |
|  |  |  | If using biological toxins, review [safety guidance](http://www.ehs.washington.edu/system/files/resources/biotoxin-safety.pdf) and submit SOPs for each toxin. |
|  | [ ]  | [ ]  | [Nanoparticles](https://www.ehs.washington.edu/resource/guidelines-safety-during-nanoparticle-research-534) (˂100 nm in length). List and specify use and/or production.       |
|  | [ ]  | [ ]  | I have a current LSM with [lab-specific chemical SOPs](https://www.ehs.washington.edu/chemical/chemical-sop-templates-and-guidelines) that is available to staff. |
|  |
| **Radiation**Does this project involve the following? Reference the [UW Radiation Safety Manual](https://www.ehs.washington.edu/system/files/resources/RSManualBinder.pdf). Note: Use of radioactive materials requires prior authorization by [EH&S Radiation Safety](https://www.ehs.washington.edu/radiation/radiation-use-authorization-rua) (radsaf@uw.edu). |
|  | Yes | No |  |
|  | [ ]  | [ ]  | Radioactive materials. Describe and list any radionuclides used on the project:       |
|  | [ ]  | [ ]  | X-ray or non-ionizing radiation, including lasers, ultra-violet (UV), magnets, and radio frequency (RF) devices. List and specify the type:       |
| **Other Hazards** |
|  | Yes | No |  |
|  | [ ]  | [ ]  | This project involves other significant hazards (e.g., climbing hazards, etc.). Describe:       |
| **Training** [Refer to FAQ](http://www.ehs.washington.edu/biological-use-authorization-bua-application-faqs#T1) and the EH&S [Laboratory Training Matrix](http://www.ehs.washington.edu/system/files/resources/ehslabsafetytrainmatrix.pdf) for suggested training classes. |
|  | Yes | No |  |
|  | [ ]  | [ ]  | [EH&S Biosafety Training](http://www.ehs.washington.edu/training/biosafety-training-online) is completed. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#T1) Required for PIs and lab staff every three years. |
|  | [ ]  | [ ]  | PI/supervisor has provided lab-specific biosafety training to laboratory personnel including safe lab practices, required PPE, health hazards of each biological agent, and signs and symptoms of exposure. |
|  |  |  | N/A |  |
|  | [ ]  | [ ]  | [ ]  | [EH&S Shipping Biological Substances Category B Training](https://www.ehs.washington.edu/training/shipping-biological-substances-category-b-online) and/or [EH&S Shipping Hazardous Materials Training](http://www.ehs.washington.edu/training/shipping-hazardous-materials) are completed. Required for shippers and/or transporters of infectious substances or hazardous materials. [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#T2) |
|  | [ ]  | [ ]  | [ ]  | [EH&S Bloodborne Pathogens for Researchers Training](http://www.ehs.washington.edu/training/bloodborne-pathogens-researchers-online) is completed initially and annually. |
|  | [ ]  | [ ]  | [ ]  | PI/supervisor has provided lab-specific training on the site-specific BBP exposure control plan. |

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| 1. **Personnel Registration**
* Include the principal investigator, laboratory manager(s), research staff, students, fellows, and all other staff who have the potential for exposure to biohazardous agents.
* [EH&S Training Records](https://www.ehs.washington.edu/training/training-records) are available online.
* [EH&S Biosafety Training](http://www.ehs.washington.edu/training/biosafety-training-online) is required every three years for PI’s whose research involves biohazards and for those who have the potential for exposure to biohazardous agents.
* [EH&S Bloodborne Pathogens Training](http://www.ehs.washington.edu/training/bloodborne-pathogens-researchers-online) is required annually for those who have the potential for exposure to human blood or other potentially infectious material ([OPIM](https://www.ehs.washington.edu/biological/bloodborne-pathogens-bbp-program)). If certain personnel do not have potential for exposure to BBP, mark N/A for their training.
 |
| **Name** | **Position** | **UW Net ID** | [**Training Dates**](https://training.ehs.washington.edu/mytraining/index.php) **(most recent)** |
| **Biosafety** | **Bloodborne Pathogens** |
| **Date:** | **Date:** | **N/A** |
|       |       |       |       |       | [ ]  |
|       |       |       |       |       | [ ]  |
|       |       |       |       |       | [ ]  |
|       |       |       |       |       | [ ]  |
|       |       |       |       |       | [ ]  |
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|       |       |       |       |       | [ ]  |
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| 1. **Supplemental Forms**

Are the following supplemental forms required for your research? If yes, submit with this application. |
|  | Yes | No |  |
|  | [ ]  | [ ]  | [**Site-specific Bloodborne Pathogen Exposure Control Plan**](https://www.ehs.washington.edu/system/files/resources/bbpecp.docx)**:** Required for projects involving working with bloodborne pathogens or drawing, processing, working with, or storing human blood, tissue, cells, cell lines, or body fluids visibly contaminated with blood or other potentially infectious materials (OPIM).  |
|  | [ ]  | [ ]  | [**Influenza Virus Supplemental Form**](https://www.ehs.washington.edu/system/files/resources/bua-influenza.docx)**:** [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#GD2) Required for projects involving work with any influenza viruses, both wildtype and recombinant.  |
|  | [ ]  | [ ]  | [**Dual Use Research of Concern (DURC) Form**](https://www.ehs.washington.edu/system/files/resources/DURC-application.docx)**:** Required for projects involving non-attenuated strains of the following agents & toxins:

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| * Avian influenza virus (highly pathogenic)
* *Bacillus anthracis*
* Botulinum neurotoxin
* *Burkholderia pseudomallei*
* *Burkholderia mallei*
 | * Ebola virus
* Foot-and-mouth disease virus
* *Francisella tularensis*
* Marburg virus
* Reconstructed 1918 influenza virus
* Rinderpest virus
 | * Toxin-producing strains of *Clostridium botulinum*
* Variola major virus
* Variola minor virus
* *Yersinia pestis*
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| Principal Investigator Statement of Responsibility [FAQ](https://www.ehs.washington.edu/biological/biological-research-approval/biological-use-authorization-bua-application-faqs#SR1)* As Principal Investigator for this project, I have the responsibility to ensure that my laboratory operates in a safe manner and that all staff and students are informed of risk, appropriately wear protective equipment, and are adequately trained.
* I understand that I am responsible for assuring that my laboratory complies with all federal, state, and local environmental laws and regulations. I will comply with shipping requirements for hazardous materials.
* If my work involves **recombinant or synthetic DNA/RNA molecules**, I acknowledge that I am responsible for **full compliance** with the NIH Guidelinesin the conduct of recombinant and synthetic DNA/RNA research.
* **I will neither initiate nor modify** any recombinant or synthetic DNA/RNA research that requires IBC approval prior to initiation until IBC approval is given.
* I will report the following to an EH&S biosafety officer at 206-221-7770 or ehsbio@uw.edu as soon as possible:
	1. Violations of the NIH Guidelines;
	2. Biohazardous spills;
	3. Loss of biohazard containment;
	4. Research-related accidents or illnesses;
	5. Exposures or potential exposures to biohazards, including recombinant or synthetic DNA/RNA;
	6. Exposures or potential exposures involving animals previously exposed to biohazards, including recombinant or synthetic DNA/RNA.
* I will adhere to the IBC-approved emergency plans for [spill response](https://www.ehs.washington.edu/system/files/resources/spill-response-poster.pdf) and [personnel exposures](https://www.ehs.washington.edu/system/files/resources/exposure-response-poster.pdf).
* In case of incidents or near misses, I will instruct my staff to complete the [Online Accident Reporting System (OARS)](https://www.ehs.washington.edu/workplace/accident-and-injury-reporting) form within 24 hours. If any of my staff are employed by the University of Washington Medical Center or Harborview Medical Center, then I will direct them to complete an accident report through the medical centers.

* I will ensure that all personnel working in my laboratory are familiar with the [University’s Accident Prevention Plan](https://www.ehs.washington.edu/workplace/accident-prevention-plan) and our department/unit’s Supplemental Accident Prevention Plan.

**To the best of my knowledge, the information reported on this form is correct and accurately reflects my proposed research.** **I further understand that I must contact EH&S Biological Safety prior to initiating any changes in my research involving biological materials (including recombinant or synthetic DNA/RNA).**     Principal Investigator Name (printed or typed)           Principal Investigator Signature/Electronic Signature Date |
|  | Submit completed application and any supplemental documents, SOPs or permits to EH&S Biological Safety at ehsbio@uw.edu or by responding to your BUA renewal request email. |  |
|  | **EH&S Biological Safety ·** **ehsbio@uw.edu** **· Box 357165 · 206-221-7770** |  |